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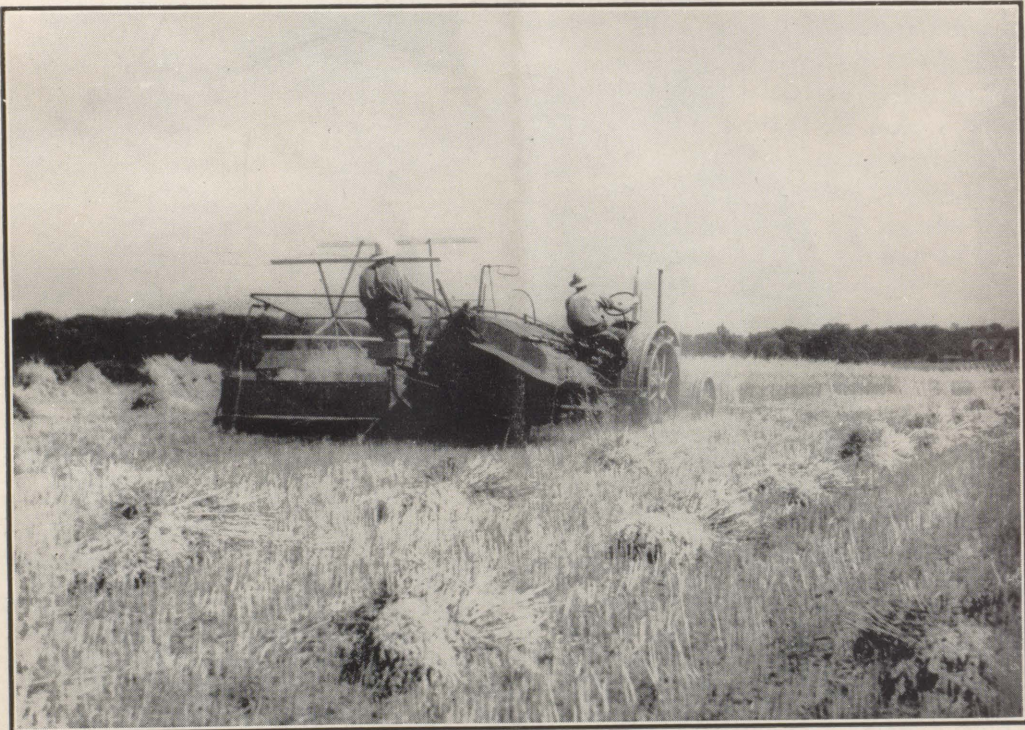
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Farmers Hold the Key to a Better World

Just what is farming? Ask that question of three different people, and one is likely to say it's a way of life, the second that it's a business and a third that it's a science.

The truth undoubtedly lies in a mixture of the three. In the first place, farming involves almost every physical science. The farmer need not know very much about these sciences; if he can put to work the knowledge gained by the workers in each field that is all he needs to do to increase his output. It will make him a good farmer on the production end.

But it is not enough to be able to produce. In our complicated world we have to know what to produce and how to market it, in order to make a reasonable living. So, if the family is to have any of the fruits of modern industry, farming must also be a business. Whether the farmer knows it or not—and those who argue most hotly that farming is solely a way of life seem to be pretty keen when it comes to the actual transactions—he is in business. And the better he operates this business, the more he and his family will be able to enjoy life.

That brings us back to a way of life. Of course farming is a way of life. So is pulling teeth or writing editorials. The big difference is that the farmer's home is also his working headquarters, and his family may do a lot of the work, so there is less demarcation between the job and the home than in most other occupations.

Unfortunately that phrase "a way of life" is a broad generality that means nothing in itself, though it often comes in handy as a red herring to sidetrack an argument. The important question is: "What kind of life?"

Just look at the community around you. You will find some farmers who have time for nothing but working at a headlong pace, year in and year out, although they have long ago amassed huge tracts of land and piled up bank accounts that should enable their families to take life a little easier. Is that a desirable way of life?

There may be others who cultivate only a few acres of land and milk only a couple of cows, who never

have a cent in the bank, but who can always find time to go fishing or hunting. Yes, they say, they enjoy life, and they don't believe their families need any education to get along as they have. Perhaps the wife has to work her fingers raw to keep the children fed and clothed. Perhaps the school has had to close because there are too many such families in the district, so that it can't be maintained. Is that a way of life that fits in with what we have learned in the twentieth century?

But the big majority of people in almost any community belong to neither of these camps. Instead, they strive to produce as much as they can, and try to enjoy some of the fruits of their labours from day to day and from year to year. They are wise enough to know that wealth in itself does not mean happiness; and that those who seek solely to store up wealth for use at some future time usually lose the ability to enjoy anything.

They also know that in today's world peace and prosperity depend on everyone producing his full share. With two-thirds of the world's population underfed, the farmer has an important role on the stage of history. And intelligent farmers know that in order to put the most into that role they must understand what is going on in the rest of the world. They regard better education as a positive step toward better farming and better world relations.

So, whatever we may consider farming, its future depends on better education. For non-farmers, so that they may understand the hardships endured by other people, and the amount of work that goes into producing food. For farmers, so that they may produce more of products that are needed, so that they may draw better returns from this production, and so they may use these returns in fashioning for themselves, and for the world, a better way of life.

Our Cover Picture

The harvest scene on this month's cover was taken on the Provincial Seed Farm near Ste. Anne de Bellevue by Walter Whitehead.

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Silo Filling Time is Here

The way a crop is ensiled makes a big difference in the amount of wastage, and in the feed value of the ensilage. Here are a few practical hints on how to get the most out of the crop you put into your silo.

by J. R. Cowan

WHERE corn can be grown successfully, silage is one of the most important roughages for dairy cattle. Thus this crop is of prime importance, particularly this season after the late spring which has reduced other feed crops. When properly made, it can be the source of many major nutrients. Good quality in silage depends on cutting the crop at the right stage of maturity, chopping it fine, thoroughly excluding the air and obtaining enough but not too much moisture in the cut material. When silage is rightly put into and carefully removed from the silo, there is no loss from spoiling except on the surface.

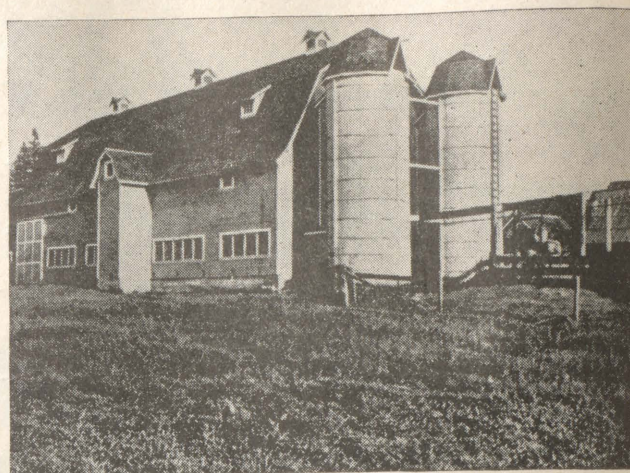
The variety used for ensilage purposes is very important. It should be one which will be at the proper stage of maturity for food value and efficient ensiling is when it has reached late dough, or is just beginning to glaze.

We are now living in an age of hybrids. The varieties which we used to know are disappearing rapidly from the seedsmen's shelves. Most of these hybrids being sold now have been selected primarily for the production of grain. However, they do have many characteristics desirable in a silage corn such as strength of stalk, corn borer resistance, good ears and suitably for certain regions. All these features make hybrid corn a wise choice for the farmer to use in place of the old open-pollinated varieties.

Experimental work has been under way to produce



New ensilage hybrids being developed. The paper bags make it possible to fertilize the corn with pollen from whatever variety is desired, and to exclude other pollen.



High silos of small diameter show less spoilage than lower, wider silos, because less surface is exposed.

hybrids primarily for ensiling purposes. Many promising sorts are resulting and should be made available in the not too distant future.

Silo filling time is at hand now and every precaution should be taken to ensure a high quality of silage for next winter's feeding. Such things as harvesting at the right stage of maturity without frost damage; checking of silos, harvesting and cutting equipment are all imperative.

Frosted corn dries out very quickly and many leaves are lost in handling. It may also be so dry that it does not pack well. So, for good quality of silage, plan on silo filling before any danger of frost.

Ensilage is the product of any green, succulent crop stored so that the air is excluded from the silage material. If air gets at a heap of juicy green material it results, in the first place, in fermentation, with the slow burning and loss of digestible food substances and the production of heat. The temperature to which the material rises is a measure of the loss of food value through fermentation. Therefore one of the objects in making silage is to limit fermentation by excluding air. Also, if air continues to enter the silage, as through cracks in the wall of the silo, the normal silage fermentation is followed by the growth of moulds and the silage is spoiled.

Before the silo—whether made of concrete, wood or other material—is filled, care must be taken to see that the walls are airtight, and, in the filling, air must be excluded as far as possible by efficient tramping. In stave silos all bands should be checked and properly tightened. In cement or tile silos, walls should be clean, smooth and free from any old silage. Wherever there is any debris clinging to walls, there is the possibility of uneven settling, and the formation of an air pocket. The logical time to clean the walls is when the silo is being emptied.

A statement about

HOUSEHOLD HEATING OILS

The demand for petroleum products throughout the world is today much greater than at any time in history. In Canada, for instance, consumption of heating oils has doubled since 1945, the year of peak war requirements.

To help meet this unprecedented Canadian demand Imperial Oil has provided an unprecedented supply. However, the demand for heating oils used in range burners, space heaters, water heaters and household furnaces continues to increase at a rapid rate, while our most strenuous efforts to expand refining and storage capacity and other facilities are being hampered by lack of construction materials.

This means that the margin between the supply of and the demand for heating oils is very narrow and may approach a critical point this winter if people continue to purchase oil-burning units without first assuring themselves of an adequate supply. As a protection to the public we would advise that:

Before purchase of a range burner, space heater or any household oil-burning equipment, make certain you are assured of a continuing supply of fuel. Early this year, in order to protect our existing customers, we notified our entire sales organization, including dealers and agents, that we could not take on any new heating oil customers.

Imperial Oil's replacement and construction program, delayed when materials and labor were needed for war production, is being pressed as rapidly as possible. When completed it will restore our traditional margin of supply over demand so that all requirements will be met. In the meantime, every effort is being made to increase available supplies.

Any commitments we have made to supply household heating oils have been carefully considered and we can assure our customers that, barring unforeseen circumstances, these commitments will all be met.



IMPERIAL OIL LIMITED

When starting to fill the silo, it is not necessary to tramp the silage. The important thing is to have it uniformly distributed about in thin layers. The weight will automatically pack the bottom. The best plan is to keep the surface of the silage level or slightly higher in the centre; in this way the whole mass settles regularly, the silage is kept closely pressed against the walls, and air is excluded. As the silage nears the top of the silo, however, the tramping should be more thorough and here two or three men can be usefully employed. Tramping at this stage is needed both because it will tend to increase the effective capacity of the silo, and to reduce heating, which is apt to be high at the top.

The capacity of the silo and the packing of the silage will be more efficient if filling can be intermittent rather than all at one time. Where such intermittent filling of a silo is practised, the interval between any two fillings must not exceed two days, or a mouldy layer will form on top.

Here is a word of warning. Deadly gases are formed when the silage ferments. So before work is resumed in the morning or after any interruption in filling, the lowest possible door should be opened and the blower

put on to remove any stagnant gases. It is always wise to observe this precaution.

It is in the top of the silo that most spoiling and wastage is likely to occur; and some loss here is inevitable. Under good conditions, no more than 3-6 inches should be spoiled; but if management is careless, as much as three feet of the top silage may be wasted. Care should be taken to see that the last 10 or 15 loads are ensiled in a very juicy condition and not half dried, as sometimes happens at the end of the operation. If at the end of the filling the crop is over-mature and dry, water may usefully be added. It adds to the weight and pressure on the top and enables the silage to be packed more tightly. It is a good policy to put a few loads of green grass through the cutter, as a final top-up. Anything which will help in keeping the top layers of silage moist and tight will reduce wastage.

Because of its large yield of digestible nutrients and its suitability for storing in a small space, corn silage is both an economical and profitable addition to the dairy ration. While corn silage is an excellent feed for dairy cattle, it is not complete in itself, but must be used in conjunction with other roughages and concentrates.

What's Needed in Roadside Stands

The automobile age has produced many children, among them the roadside stand. Here an enterprising farmer or his wife may dispose of farm-grown products at considerably better prices than could be secured through normal channels—if conditions are right.

But such stands will result only in a waste of time and effort—as well as produce—if the necessary conditions are not met. These conditions are those of location, quality of produce, regular supply, sales appeal, packaging and service. Some hints on what is needed for success in such a business are given by R. D. L. Bligh, assistant in horticultural extension at the Dominion Experimental Station, Kentville, N.S.

Location — Volume of trade is determined by heavy motor traffic. An urban stand that is visible in either direction, and is located on the right side of the highway, with ample parking space, is advantageous to the city dweller returning home. A neat, attractive, clean stand and surroundings are of first importance. The products offered for sale must be orderly arranged, attractively displayed, without congestion.

Quality — Freshness and maturity of the products offered for sale are of vital importance. The motorist shopping at country roadside stands feels he is at the source of production where freshness is inevitable. He hopes to buy at cash and carry prices. Prices must, therefore, be such as to impress the customer as fair, and not higher than retail prices in the neighboring city markets.

Regular Supply — The chief products offered for



Fruit and other farm produce can be sold profitably at an attractive, well-located roadside stand.

sale should be in steady supply if the market stand is to be permanent. Variation in secondary products is an attraction, and novelties are in demand, but the ultimate success of the stand depends on regular customers who expect to find seasonable standard products of quality at fair prices. All procurable kinds of native fruits in their season should be displayed on the stand. These include rhubarb, strawberries, raspberries, cherries, blueberries, peaches, plums, pears, grapes and apples. It is well to remember that 75 percent of the

fruits purchased are for eating out of hand. Therefore only fruit of high quality should be displayed and sold from roadside stands.

The progressive manager of a roadside fruit stand should, whenever possible, have continuously on display and for sale each fruit in its season. The strawberry, for example, could be secured by efficient contracts with the early and late strawberry producing areas, and offered for sale from late June and throughout July.

Sales Appeal — The factors that influence fruit sales, to the motoring consumers, are, in order of importance: quality (in appearance and in taste); color (typical of the variety); size $2\frac{1}{2}$ " to $2\frac{3}{4}$ " in diameter for apples; price (quality apples of this size should retail at 35 to 40 cents per dozen), freedom from bruises and blemishes.

Packages—High quality, uniform sized, well packed fruit should be offered in clean and convenient packages. Ninety percent of the fruit purchased for the home is purchased by women. Modern housing does not provide storage for large quantities of fruit, and the trend is toward frequent purchases of quality fruit in convenient small packages.

Service — Prompt and courteous service to all customers is indispensable. The average motoring customer does not like to—and will not—wait. Any suggestion of unbusinesslike practices, poor showmanship, irregular supply, indifferent or varying quality, disinterested attention or ill considered prices will soon be reflected in the volume of business done.

Floods Show Conservation Need

Farmland erosion on the watersheds was described by Chief Hugh H. Bennett of the U.S. Soil Conservation Service as the less spectacular but actually most damaging aspect of floods like those which have been sweeping the Eastern half of North America.

The Department of Agriculture official said that wider use by farmers of measures which stop erosion and slow down the runoff of water into swollen streams not only will reduce that damage but also should, when enough of the work is done, result in cutting down flood crests by 20 percent or more. He mentioned such conservation practices as contour tillage and cultivation, contour strip cropping, terracing, using stubble-mulch farming and growing cover crops, conservation range and pasture management, building farm ponds, farm woodland protection, and others. Gully control and stabilizing smaller stream channels are specific flood control measures used on watershed areas.

"Flood control," Dr. Bennett explained, "begins in the fields and pastures up on the watersheds back from the stream channels. Here is where the rain falls and here is where floods come from, if all the water is allowed to run off into the streams."

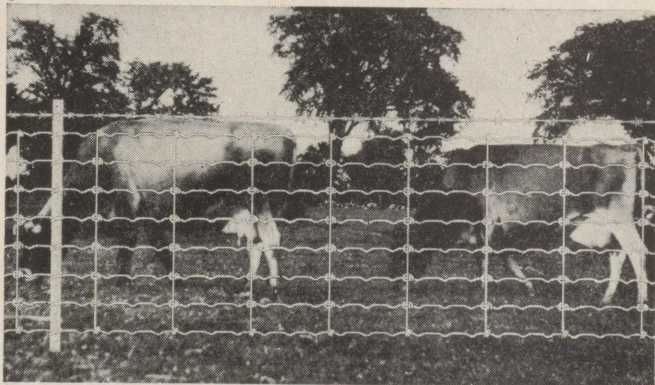
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Better Grasses for More Feed

by A. A. Hanson

A BIG share of the hay and pasture on our farms comes from Timothy and Kentucky blue grass, which are widely adapted to prevailing soil and climate conditions. While these grasses are very useful there is little doubt that no two varieties can adapt themselves to all the extremes found in such a big area. The use of other sorts might not only aid in increasing total production, but also in lengthening the grazing period.

A distinction must be made between grasses suited primarily for hay and those finding their greatest use in pastures. Types that persist in closely grazed fields are characterized by a large percentage of basal leaves and spreading growth. With good management, however, most of the taller growing hay types can be pastured very effectively.

Timothy

Timothy has some very definite advantages in that its seed is cheap, it is easy to establish, it does well in mixture with legumes and animals like it. It is and will continue to be very important in hay meadows; but there are certain objections to its sole use under all conditions. These include its susceptibility to dry weather, limited aftermath, and the fact that it does not persist well under grazing.

Brome Grass

Brome is characterised by a vigorous spreading habit, and the ability to grow on dry land. An excellent grass for both hay and pasture, it is high yielding, palatable and retains its green colour over a relatively long period. As brome is long-lived and aggressive it should be sown with a persistent legume such as alfalfa,

Each kind of grass has its own peculiarities that make it most suitable for use under certain conditions. These descriptions will enable you to decide which varieties should do best on your farm.

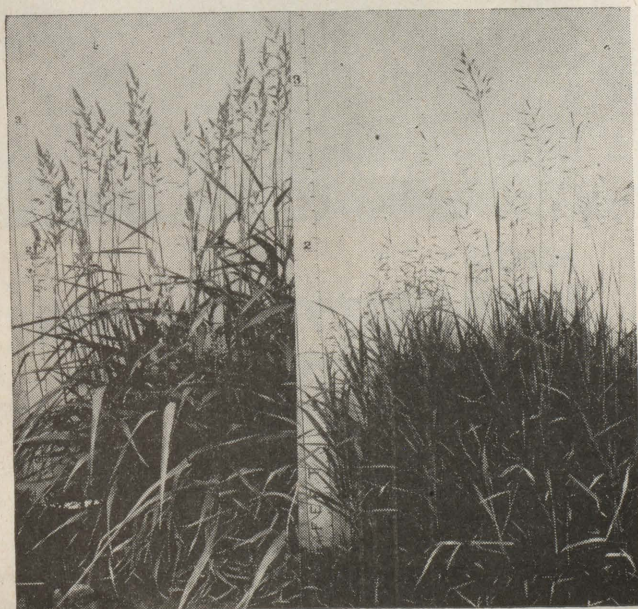
for in pure stands its lack of nitrogen results in a sod bound condition. Mixtures of brome and alfalfa thrive on well-drained, fertile soils.

The large seeds of brome are usually sown through the grain box, and careful attention should be given to the depth of planting, otherwise the stand may be poor. Sowing the seed rather shallow is preferable, as brome germinates best at a depth of from one to one and a half inches. Fields with high crowns are better sown cross-wise, rather than in the direction of the dead furrows, as this will aid in providing a more uniform depth of covering.

Reed Canary Grass

Reed Canary grass is easily recognized by its large reddish head and very broad leaves. A tall-growing grass, it spreads rapidly by means of underground stems and is capable of surviving frequent floods.

Reed Canary can be used to furnish hay or pasture on low-lying fields where other grasses are killed by flooding. Although it may not be feasible to seed a legume under these circumstances, the possibility of maintaining ladino or alsike clover should be examined. Excessive tramping of thin stands, especially when the ground is wet, will injure the spreading stems and result in a tufted, uneven growth. Harvesting hay in



Reed canary grass.



Brome grass.



Orchard grass.



Meadow fescue.

the first crop year permits the sod to thicken and become more resistant to damage.

Orchard Grass

Orchard grass has a tufted growth habit and is valued for its ability to grow rapidly and produce an excellent aftermath under relatively dry conditions. But this grass matures very early, which makes it difficult to manage either for hay or pasture. In addition it is often subject to severe winter injury.

Orchard grass makes effective pasture when grazing is adequately controlled. Heavy stocking during periods of rapid growth will increase the amount of selective grazing by preventing the crop from becoming mature and unpalatable. Where the animals are unable to keep the growth in hand the excess herbage should be clipped back with a mower.

Hardy strains of this grass deserve some consideration from the standpoint of grass silage and midsummer pasture.

Meadow Fescue

Meadow fescue tends to produce a rather coarse, stemmy hay but the quality will be high if the stand of legumes is good and the hay is cut early. It possesses a large percentage of basal leaves and recovers well on moist fertile soils. This, together with the fact that it forms a fairly good sod, suggests a wider use for pasture than for hay.

Kentucky Bluegrass

Kentucky bluegrass is one of the main constituents of many permanent pastures. It volunteers readily in old hay meadows that possess sufficient fertility for its growth. A low, spreading growth habit allows Kentucky bluegrass to survive under very close grazing, and as a palatable, persistent grass in pastures it has few rivals.

Unfortunately Kentucky blue becomes dormant in dry weather, creating a serious pasture problem. This is particularly true where rough natural pastures are depended upon for the major portion of the grazing requirements.

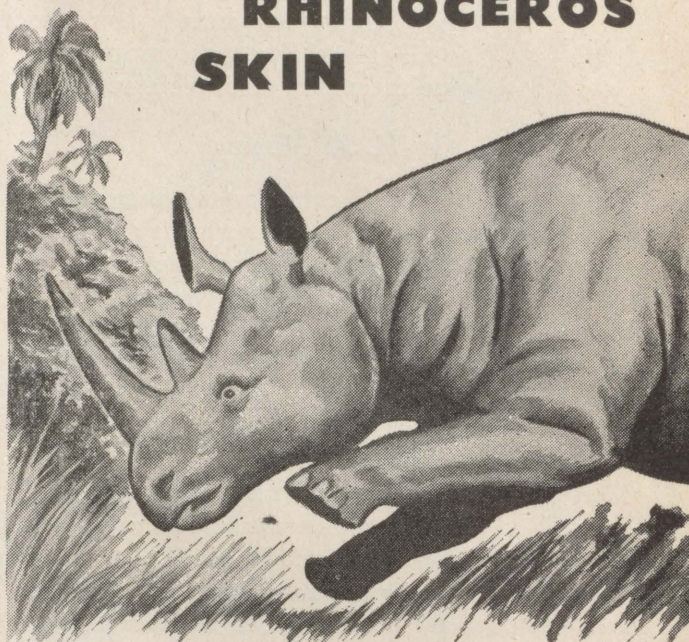
Other Grasses

Red top, Canada blue, red fescue and brown top frequently make a large contribution in permanent pastures. The seeding of these grasses cannot be recommended, since they are not as valuable as Kentucky bluegrass. However, where they come in naturally and soil conditions are such that the superior types fail to persist, then these grasses will furnish needed pasture.

Soil Organisms Immune to DDT

DDT has no injurious effects on the bacteria and fungi in the soil, it was learned from experiments conducted recently. In one test DDT was mixed with the soil and, in another, it was spread on fungi and bacteria grown artificially in the laboratory. There was no evidence of injury to micro-organisms in either case. This indicates that DDT can be safely applied to crops without fear of injury to the soil micro-organisms.

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More Cash for the Farmer

Every year more farmers claim they can make a better living by adding to their farm programme a few special crops that find a steady demand at good prices. But these crops must be properly handled before they will give their most profitable returns.

by H. R. Murray

THE question of cash crops and supplementary or special crops is one every farmer should try to answer, by including as many as possible in his rotation. Cash crops are those which give returns the year they are planted: for example potatoes, swede turnips and vegetable crops for processing by canning, freezing or dehydration. Crops which require special attention such as raspberries, strawberries and black currants are known as supplementary or special crops.

Potatoes are one of the oldest and commonest of the farmer's cash crops, so almost every farmer is familiar with the common cultural practices which have brought success and prosperity to many agricultural districts. Every farmer should consider again, however, a few of the fundamentals in the production of potatoes and should decide if, perhaps, he should not make a few changes in his methods of production. For example the use of certified seed can increase the average yield of potatoes by as much as one hundred per cent. Then again chunky pieces of large tubers containing at least one eye in each piece, or small whole tubers from certified stock, set in the field twelve inches by three feet will give the most economical yields.

In regard to fertilizers, most farmers now realize that potash is the most perfect element in the production of high grade potatoes and that adequate applications of potash will give heavier yields of good quality tubers than either nitrogen or phosphorous. Such being the case, care should be exercised in choosing fertilizers for potatoes, so that they will contain a preponderance of potash.

There are also a few other important points which should not be overlooked. These are good drainage and loamy soil in preference to the lighter or heavier types. It is wise to choose a soil relatively light in organic matter; but never use lime, except in cases of extreme acidity. Thorough spraying for the control of insects and diseases and the control of weeds, are of fundamental importance.

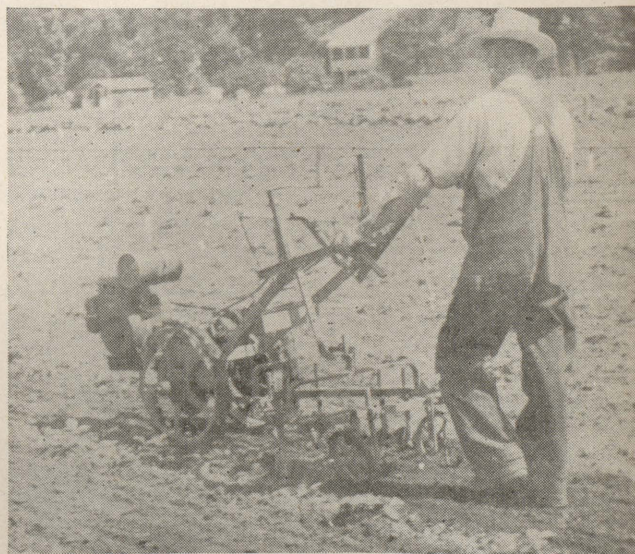
Swede turnips are a cash crop whose possibilities have not been realized by many of our Quebec farmers, although some districts have done very well in the past with this crop. In any case they might all profit by taking a leaf from the book of our Ontario neighbours and noting that the Ontario farmers who grow swedes have had an average yield for the last five years of over four

and one half million bushels and that they exported to the United States approximately half of this amount or two million three hundred and fifty two thousand bushels. Furthermore the estimated average yearly returns to the Province of Ontario from the United States, in terms of Canadian dollars, for the finished bagged product exported, is \$2,500,000. This is truly the million dollar industry, especially since the practice of waxing the roots with parafin wax has been introduced, as over fifty per cent of the exported material is now waxed.

The important points to remember in producing this crop are: First a good variety such as the Macdonald College Laurentian. Second, a cool climate, third a reasonably fertile, deep, mellow soil with an application of about 50 pounds of borax to the acre applied either alone or in the fertilizer mixture; fourth, some provision for waxing the roots after trimming and washing; and fifth, a good organization to facilitate selling.

The borax, a carrier of the element boron, is used to control an internal disease of the turnip known as "brown heart," which is common to swedes grown in soils deficient in boron. Very few farmers especially in Quebec attempt to produce swedes without first applying borax to the soil.

Waxing, or the application of hot parafin wax to the surface of the turnip is now considered an essential part of the preparation for ready sale at good prices. A



Working a strawberry plantation with a garden tractor drawing a cultivator attachment.



AUTUMN

Children go back to school... leaves redden and fall... darkness comes earlier... the last crops are taken in... fires become popular again... there is frost in the morning air.

Now is the time to think of winter comforts, repairs to the house and buildings... fuel... winter feed. A good time too for quiet planning and for talking over with our nearest branch manager your plans and financial needs for the future. He welcomes your call.

THE ROYAL BANK OF CANADA

mixture of paraffin wax and one per cent of resin is heated to a temperature slightly over 250°F. and the prepared roots are then quickly dipped, after which they are allowed to drain and cool. This is the finished product, and the roots may now lie exposed for days in a dry atmosphere such as we quite often find the average grocery store or kitchen, without showing any signs of shrivelling.

Organization Needed

A good organization is also necessary. The success of the Western Ontario growers is due largely to their good organization on the part of the growers, and to very close co-operation between their organizations and the representatives of the Provincial Government.

Canning or industrial crops include many kinds of vegetables, but the four forming the bulk of the canning industry are peas, beans, sweet corn and tomatoes. These crops are somewhat different in their requirements; but as a group they form the basis of the whole canning industry.

Almost every farmer could work in 15 acres of canning peas to every 100 acres of land, if his fields are well drained and if they are not too rolling. Hilly land is not suitable for peas because maturity will be uneven. For the best quality and the heaviest yields choose the heavier and cooler types of soil in preference to the light and warmer types. These latter types should be reserved for beans, sweet corn and tomatoes as these crops require warmer conditions to make the best growth and to produce the heaviest yields. Avoid low spots, and thus prevent injury from early fall frosts.

Heavy applications of commercial fertilizers usually are not considered necessary for canning crops, but an adequate supply of phosphate is essential to success. This is especially true when growing tomatoes.

If an attempt has not been begun already to produce canning crops in your district, some form of organization will have to be carried out before progress can be made along these lines. A co-operative body or society will have to be formed or a branch of a reliable company established. In the case of the latter, consult one of the company's representatives to find out if they would be interested in extending their business into a new district. If the answer is in the affirmative then organization meetings should be held for all the farmers.

Need Very Broad Support

It is of fundamental importance to have the support of as many farmers as possible, so as to include a maximum number of crops and thereby extend the canning season over a long period.

In growing and processing canning crops an adequate supply of home and factory labour is essential to success. This helps to explain why factories are usually located in or near a small town. If beans and tomatoes

are grown by the farmer he should have a good supply of home labour, or else he should foresee the possibilities of obtaining pickers from adjoining farms.

The value in dollars and cents of some of our so-called small and bush fruits, such as raspberries, strawberries and black currants has not been appreciated fully by many farmers who are located close to relatively good markets. The average yield from an acre of raspberries, the third summer after setting the plantation, is in the neighbourhood of 5,000 pints. The average yield from an acre of strawberries the year after setting is 5,000 quarts; and the average yield of an acre of black currants the third and fourth year after setting is in the neighbourhood of six to seven thousand quarts. The average return per acre for raspberries and strawberries is very close to one thousand dollars per crop and the returns for black currants is two thousand dollars per crop.

Here again hand labour is one of the important considerations. Farmers who are able to obtain enough labour for harvesting beans and tomatoes for the cannery and who are located within reasonable trucking distance to a good market, via a good road should consider seriously planting at least an acre each of these small fruits. Be sure to buy the plants from a reliable dealer and in purchasing raspberries demand government certified stock.

New B.C. Dog Law Has Fangs

Sheep-killing dogs have forced many farmers to get rid of their flocks, and have scared others out of trying to keep sheep. Most provinces have some sort of dog law to protect flocks, but few of these seem very effective. Now British Columbia has passed one that seems to have plenty of bite in it. Here are its most important passages:

Clause 3: no person shall keep or have in his possession any dog unless a license therefor under this act has first been obtained.

4. It shall be lawful for any person to kill:

(a) Any dog which is not licensed

(b) Any dog not on leash, found off the owner's premises without having on a leather or metal collar with the license tag attached.

5. It shall be lawful for any person to kill any dog in the act of pursuing and worrying or destroying any sheep, goat or poultry elsewhere than on the land belonging to the dog's owner.

12. Except within the area of a city municipality no dog shall be allowed to be at large at any time between sunset and sunrise, unless accompanied by or within reasonable call of the owner or person in charge of the dog.

20. It shall be the duty of all officers and constables of Provincial Police and of every municipal police to enforce the provisions of this Act and, if necessary, to visit all premises where they have reason to believe any unlicensed dog is being kept.

Better Malting Barley Is Aim of New Barley Improvement Institute

Formation of "The Barley Improvement Institute of Canada" with an endowment of more than \$360,000 over a five-year period has been announced by George B. Oland of Fairville, N.B., President of the Dominion Brewers Association.

Located in Winnipeg, the Institute will coordinate and manage an over-all barley improvement program, including plant breeding, scholarships, a service laboratory, distribution of malting barley seed, administer the \$25,000 National Barley Contest, and engage in educational and extension work for the improvement of the quality and quantity of malting barley in Canada.

Outlining the different functions of the Institute, Mr. Oland said that close co-operation would be maintained with the agricultural colleges of Canada, the federal and provincial departments of agriculture, and agricultural organizations.

Ten thousand dollars will be provided for a plant breeding program in the agricultural colleges of the Universities of Alberta, Saskatchewan and Manitoba, the Ontario Agricultural College and Macdonald College, while scholarships totalling \$7,500 a year will be tenable at any of these five agricultural colleges for work done on plant breeding (genetics) and plant physiology or bio-chemistry.

A service laboratory for testing the quality of malting barley will be established at the Institute's head office in Winnipeg, and endowed with a sum of \$10,000 a year. The system of distribution of high quality malting barley seed at cost price to the farmers of Manitoba, presently undertaken by the brewers and maltsters of that province, will be extended to include the provinces of Alberta and Saskatchewan.

The National Barley Contest sponsored by the brewing and malting industries last year and continuing in 1947 will be taken over by the Institute, while an educational program on the cultivation of quality barley will also form part of the Institute's work.

Sponsorship of the Institute was the logical outcome of the work undertaken during the past year by the Dominion Brewers Association in its efforts to improve the quality of Canadian malting barley for both domestic and export use, Mr. Oland said. While financial support of the Institute will come from the brewing and malting industries, the major barley marketing organizations are also participating in this long-range program by educational and extension work.

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DOMINION RUBBER

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Feeding for More Fall Eggs

by N. Nikolaiczuk

CANADIAN export contracts for eggs pay a premium on fall eggs. To enable more poultrymen to take advantage of this premium a program of early hatching was encouraged. Now, with pullets approaching lay, every care must be taken to get a large, steady volume of fall eggs.

Proper management at this time will ensure steadily increasing production, rapid increase in egg size and a gradual development of body weight. The problem is to avoid setbacks which will disrupt this natural sequence. Experience has taught that no one factor provides the answer. The pullets should possess health and vigour; they should be well-grown for their age and in good body condition; they should be properly housed in clean quarters and, above all, their management must include proper feeding.

What to Feed

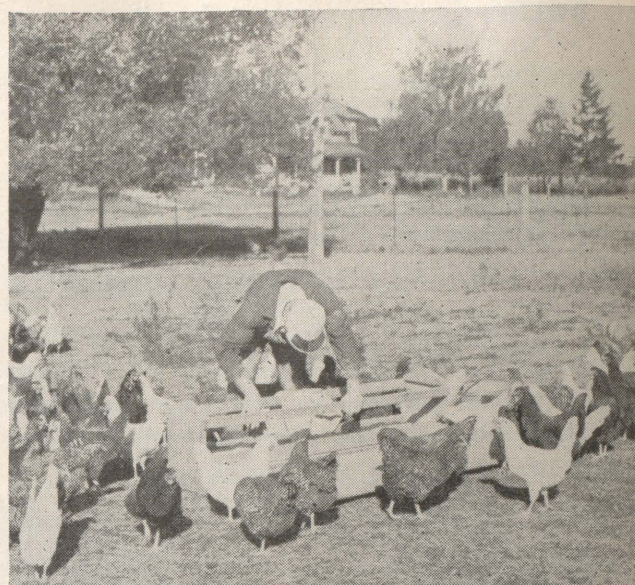
Many poultrymen change from growing mash to laying mash when the pullets reach sexual maturity. The convenience of making this change when the pullets are housed leads to the belief that it is the proper time to do so. Actually, if only 25 to 30 percent of the birds are in lay, it is advisable to continue feeding the growing mash for two to four weeks after housing. This eliminates one of the drastic changes when the pullets are transferred from conditions of free range to confinement. There is every advantage in making gradual changes, as shown by steadily increasing egg production. When at least one half of the pullets are in lay the laying mash should be introduced. First it should constitute one-third the mash mixture, then one-half and finally it should be fed unmixed with growing mash.

Use Greenstuffs

Feather-picking, cannibalism, blow-outs and constipation are vices and disturbances which often follow confinement of the pullets to the laying house. They may, for the most part, be ascribed to indoor feeding and to the abrupt reduction of greenstuffs in the diet.

An abundance of pasture will supply juicy grass which is highly nutritious and promotes good digestion. A small area of pasture adjoining the laying house, where the pullets can be permitted to graze for a time during the day, will correct many of the initial troubles which accompany confinement. Where this is not possible, the rack feeding of cut alfalfa, cabbage or carrots is

Why not get more eggs at the season when prices are at their peak? No sleight-of-hand is required. Just follow these common-sense feeding rules for better flock returns.



Good feeding will coax birds to lay heavily when eggs are at their highest prices of the year.

strongly recommended. Such greenstuffs, while still crisp and fresh, will be eaten with relish.

Do Not Stint on Grain

Whole grain, as scratch feed, is a fattening feed and during the fall months can serve as a body developer. It is normally assumed that layers should consume about equal parts of mash and whole grain. However, during the first month or two following onset of lay, scratch grain can be offered liberally, even to the extent of offering free-choice feeding in hoppers of both mash and grain. Because of their preference for grain, pullets will often consume up to two parts of the latter for each part of mash during this period.

When it becomes apparent that the pullets are becoming too fat and egg production falls below 60 percent, the grain hopper should be removed and the grain fed in the morning and at night by hand. An allowance of four to five pounds for each 100 birds, or one-third of the daily total can be given in the morning, with the remainder at night. The adjustment of mash and grain is an extremely important mechanism in the hands of the poultryman. Body condition should determine the amount of grain required.

Grain feeding apparently is in some way related to outbreaks of feather picking and the more serious vice of cannibalism among pullets. The liberal feeding of heavy-weight oats reduces these vices. This cereal can be advantageously fed during the fall months when heavier grain feeding is recommended.

Emphasis on Body Condition

Pullets are more responsive to a feeding program than hens. The late fall or early winter slump in egg



Early plows were hewn from tree-trunks. About 1800, cast-iron moldboards began to be used.

100 YEARS OF PROGRESS *in making Farm Implements*

AS LATE AS 1794, wooden moldboards were hewn from tree trunks, and when the first cast iron plows were made, farmers believed that the cast iron "poisoned the land". Then came lighter weight steel plows. Soon plows were being made in factories at much lower cost than they could be made by the local blacksmith. Since 1847 when the first Massey plant started producing plows and other farm implements, machine methods have almost completely replaced hand labor on the farm.

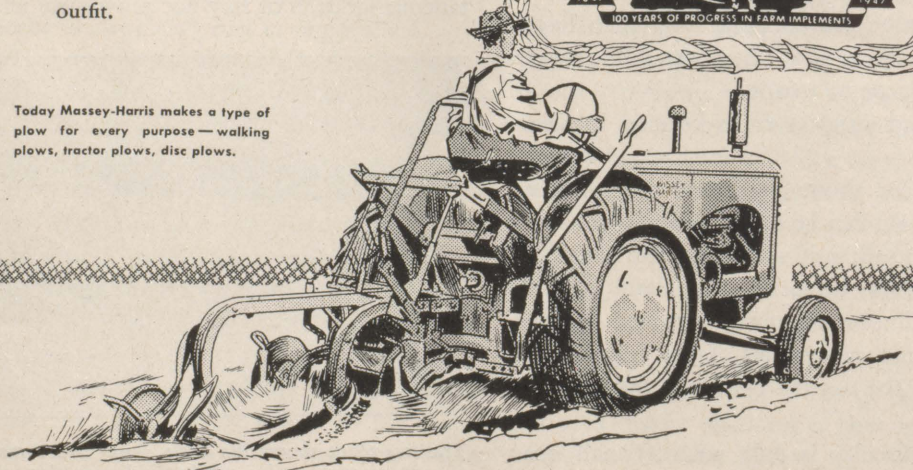
Plowing requires more power than any other farm operation. Today on thousands of farms in Canada and throughout the world, Massey-Harris plows drawn by powerful Massey-Harris tractors speed across the fields, enabling the farmer to plow twice the acreage he formerly plowed with a four horse outfit.

And Massey-Harris mowers, binders, combines and other machines handle crops more speedily than would have been thought possible a hundred years ago.

The past century has been one of steady expansion for the Massey-Harris industry. To the farmer it has brought happy release from much of the back-breaking labor connected with farm work.



Today Massey-Harris makes a type of plow for every purpose — walking plows, tractor plows, disc plows.



production, so common in pullet pens, is often an indication of failure to maintain body weight. In other words, the birds go "light". The combined drain of egg production and completion of body growth causes the birds to operate at the sacrifice of body condition. This results in a drop in egg production often accompanied frequently by a partial or neck moult. The poultryman should be on guard to see that grain feeding is maintained, so that the birds continue to be plump and well fleshed as the laying season progresses. The only reliable way to do this is through frequent handling of several birds picked at random, so as to obtain a cross-section of the thrift of the flock.

Cull for Efficiency in the Pen

The selection of pullets at housing time eliminates the underdeveloped, late maturing and "poor-type" birds, but the accuracy of selection for future egg production sometimes leaves much to be desired. The cost of egg production in terms of feed per dozen eggs produced goes down as the number of eggs goes up. The following table demonstrates the efficiency of a 100-bird pen according to the number of eggs laid.

Approximate pounds of feed required per dozen eggs when laid by five-pound birds on the basis of the production of a 100-bird pen daily.

Eggs laid per day	Lbs. feed required per dozen eggs
10	23.2
20	12.4
30	8.9
40	7.1
50	6.0
60	5.3
70	4.8
80	4.4

It can be readily seen that increasing egg production results in a substantial decrease in feed required per dozen eggs laid. This saving in feed can only be obtained if most of the birds are steady producers. Removal of poor layers is therefore a necessary step to get the most from the feed.

Considering all of these points, it is apparent that pullets must receive proper attention for good fall egg production. The first few months in the laying pen are a critical period and if proper management is given at this time there is greater assurance of a profitable laying year ahead.

Avoiding Fires in Hay Mows

When a haymow suddenly bursts into flame it's too late to save the barn. But there are ways of preventing hay fires.

Moisture content of the hay, density of packing and provision for ventilation are the factors which determine whether or not spontaneous combustion is likely in a haymow.

The United States Department of Agriculture recommends that moisture content should not exceed 30 per cent when the hay is stored, and says that mows containing 10 tons or less are not likely to heat to a dangerous degree.

Chopped hay, because of its greater density, will not ignite as readily as long hay, since the supply of oxygen is restricted.

What to Do

Hay in barns is more subject to heating than hay in stacks. Doors and windows in the barn should be opened to allow warm, moist air to escape.

Salt has not proved satisfactory in keeping hay from spontaneous ignition.

Most hay fires occur about one month after harvest. Evidence of the heating can be noted either in the temperature of the hay itself, or in a strong burning odor. Later a visible vapor may be seen.

When these conditions are noted, proceed with extreme caution. Do not remove all of the hay at once. That would provide the oxygen necessary to cause it to burst into flame.

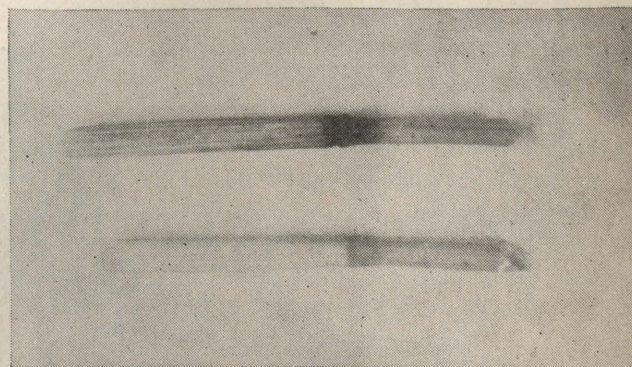
Sometimes the difficulty is only with a small quantity of the hay, it can be removed if care is used.

Do not walk on the hay. A plank across the top may prevent you from falling into a blaze somewhere beneath the surface.

Take Temperature

A rod pushed down through the hay, or horizontally from the sides, may help locate the hot spots. Inexpensive dairy thermometers, lowered on a string through pipes thrust into the hay, can also be used. If the temperature reaches 158 degrees it is likely to go on to the danger point. At 212 degrees heating is almost certain to continue until there is a blaze.

When removing hay from the barn it is best to call a fire department from a nearby town so that water will be available. Don't throw water on the hay unless it bursts into flame since this invites trouble from spontaneous ignition of hay not previously affected.



The top plant shows the dark, dusty spore masses of *Helminthosporium victoriae*, while the lower plant shows a clean, healthy joint. See story on next page.



The lodging in these oats was caused by the new disease, *Helminthosporium victoriae*, which has been discovered in Quebec this season.

Destructive Oat Disease Now in Quebec

by R. A. Ludwig

A new oat disease has appeared in Quebec this year. Discovered in Iowa in 1944, this disease has spread through the oat belt of the United States and in many localities threatens to rival stem rust in importance.

The disease is caused by the attack of a fungus known as *Helminthosporium victoriae*. The plants may be affected during the very early stages of their development, the young seedlings being killed before they are able to push their way out of the soil. Surviving infected plants show dark brown discoloured areas near the soil surface. Long yellow to brown streaks may appear on their leaves as the disease spreads upwards. Heads either fail to develop on such plants or are poorly filled.

As the crop matures diseased plants lodge, breaking over at the joints. Dark dusty spore masses of the causal fungus appear around the joints of the infected plants.

Infected plants are easily pulled from the ground because their root systems become almost entirely rotted away.

Fortunately the varieties commonly recommended in Quebec are not susceptible to this disease. Tests have shown that the ones most severely attacked have the South American variety, Victoria, as one of their ancestors. This variety has been used extensively in the United States in the development of new smut and rust resistant oat varieties. It is in these new varieties that the disease has become of such importance. Despite the similarity of names the popular Canadian variety Victory is unrelated to Victoria, and resistant to the disease.

A grower wishing to change his variety of oats should consult the Quebec Seed list of those recommended for his area before choosing a new one, in order to avoid loss from this new disease.

Let's Keep Both Horses Pulling

by J. S. Cram

By putting more effort into improving farm crops and living conditions, farm organizations can build up a lot of support for their other work.

EVERY farmer knows how hard it is to train some teams to pull together in starting a heavy load. The tendency is for one to surge ahead, then the other; and it takes a capable hand on the reins to settle both down to a steady pull.

It's much the same with the farm team of production and marketing. When one lags noticeably behind it monopolizes our attention until we see that the other is dragging. Then we're inclined to neglect the first while we concentrate on the second.

To get the highest possible returns we need to keep our minds on both horses. No matter what wizards we may be at arithmetic, we can't get away from the fact that good yields at good prices will give better returns than either good yields at fair prices or fair yields at good prices.

During the thirties, prices got away out of line, and attention was focussed on improving market conditions. Although we've gone a long way in doing that, there's still a lot of work to be done before we can be sure that the floors will never again drop out of farm prices.

So it's not surprising that most of our farm organizations have been concentrating on trying to improve markets. It's a worthy objective, and a necessary one. But it's often a slow process, too. And for the welfare of the organization, as well as the individual farmer, it would be better if, while keeping up the struggle for better markets, we put more effort into improving farm production.

This would be better for the organization because it would have something concrete to point to, when asked what it had done or what it was doing. Results that we can see are usually more potent arguments than nebulous credit for beneficial laws. That's particularly true when we want something definite to point to in soliciting support for an organization.

What sort of work can farmers' organizations do in improving production? Many kinds. The Ontario Department of Agriculture, for instance, has a list of 60 crop improvement projects that may be undertaken by local organizations; and that number includes only grain and forage crops.

A group may undertake to test grain varieties or hay or pasture mixtures to find out which do best under local conditions. It may run fertilizer tests, to show farmers



In a ploughing match or anywhere else, two good horses make a good team only if they'll pull together.

the results of various treatment. It may sponsor field crop, hay, pasture, potato or root competitions, based on yield per acre and quality of crop. It may hold field days at outstanding farms or agricultural institutions, so farmers may compare the results of other methods with their own. Or it may put all its energies into improving the local fair by reorganizing it to meet local needs, and by seeing that all the good farmers make plenty of entries.

Community Service

That just touches the fringe of the possibilities. A group may win widespread support by sponsoring junior clubs, by organizing farm forums to discuss farm problems, or by starting a co-op to fill a need in the community. It may campaign for better schools, where youngsters can get a good start and where older people can go on learning all their lives. It may raise funds for a community centre where local organizations can meet, and where everybody can get together for a good time.

All these things are needed in most communities, and somebody must start the ball rolling. Why not the farmers' organization? If it doesn't in many cases the job will never be done.

There are still other ways for a farm group to be of real service. Is there adequate medical and hospital service in the community? If not, how about investigating the possibility of starting a campaign to get them? Plenty of places have now built community hospitals and encouraged doctors and dentists to come in. They've made it easier to pay the bills by starting group health insurance schemes. Other places need health services just as badly. So why not find out how much they would cost, and how much support there would be for them? That would let the group know whether it was

worth while to go ahead; but usually, where people are not properly served at present, there's plenty of support for such schemes.

I'm speaking of farm organizations because there's one of some sort in almost any locality. And if they tackle the thing properly they can get the support of Women's Institutes, church groups and other local organizations for most of these worthy projects.

Of course, it would be a mistake to try to tackle all the things I've mentioned at once. The best way to start is to decide what worth-while piece of work has the best chance of success, and start on it. Once the line of activity is settled, the group can get all possible information on the present situation, and what has been done in other places under similar circumstances, and work out a scheme suitable for the local community.

If other groups haven't been called in to make a joint study of the matter they should be brought in at this stage, so that their support can be won, and it can be decided how the project is to be handled and what each organization will be responsible for. Then all that remains is to go ahead and finish the job, enlisting all possible support for the task, so as to get everybody interested in it.

When one job has been successfully completed, and people have some real results to see for their efforts, it isn't usually hard to persuade them to try another. And so it's possible to go on down the list, until a dreary, unprogressive district is converted into a bright, up-to-date community where it's a pleasure to live.

People who've worked together to improve their community in ways they can see are much more likely to get behind broader and more general schemes. They've a better understanding of organization and co-operation. And as a result of the greater support they'll give farm groups who undertake such work, there's more chance of success in the marketing field. What's more, there'll be better products to market.

Farm Forum Topics

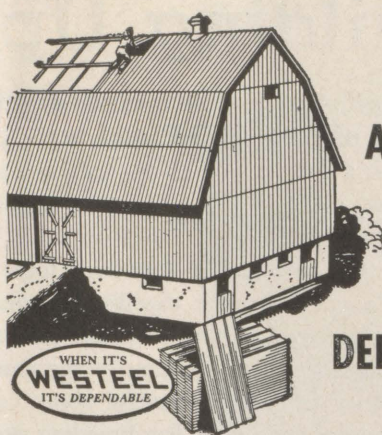
Farm Forum Members are promised some interesting evenings with the list of topics suggested for the 1947-48 season.

The first series opens on November 3rd. and will include; 'Youth on the Farm', 'The Farmer takes a Wife', and 'A Farm Organization for Everyone'.

The December series includes 'What's New in Health?', 'The Teacher in the Community'. and 'Organizing for Community Action.'

After the Christmas holiday the discussions will be: 'Marketing by Co-operatives'. 'The World is Our Market', 'Do we need a National Marketing Act?'

February topics are: 'Is Farm Income Used Efficiently?', 'What Price Shall We Ask?' and 'Are Farm-



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ers Businessmen?

The final series will be, 'What has the Machine Done to Us', 'Do we Farm the Soil—or Mine It?' and 'Do we Want More Immigration?'. The final Review night will be March 22.

Interviews For Broadcast

The CBC has just released some information on interviews to be broadcast by Jack McPherson, Farm Commentator for Ontario and Quebec, during October. Here are the titles and people to be interviewed:

Oct. 2—A Club Achievement Day—W. Cockburn and a club member from York County, Ont.

Oct. 8—Does Your Land Need Lime?—Prof. G. N. Ruhnke, O.A.C.

Oct. 9—A Junior Club Leader—Don McKell, Howick, Que.

Oct. 16—Inter-county Junior Classes, International Plowing Match.

Oct. 22—Roxton Oats—Prof. E. A. Lods, Macdonald College.

Oct. 23—Eastern Ontario Junior Club Show.

Oct. 29—Avoiding Chimney Fires—Prof. L. G. Heim-pel, Macdonald College.

Oct. 30—Inter-Club Contests, Guelph.

Building Up a Better Herd

Farmers are beginning to view their herds a little more critically, and to demand more production in proportion to cost of feed. R.O.P. and herd grading are two official instruments that can be used to cull out unprofitable cattle.

by L. H. Hamilton

COST of production has been a favourite topic of conversation among farmers for the last few years. There has been considerable criticism of prices paid the producer, and a demand for a larger share of the consumer's dollar; a tendency to be more careful about commitments, fewer record prices paid for breeding stock and a more critical appraisal of things in general.

This all seems to indicate that farmers are realizing the necessity of further economy and efficiency in production. These do not always mean curtailment of expenditure or the cutting down of enterprises on the farm. They do suggest, however, a careful analysis of the whole farm business and an effort to seek out and enlarge those lines that are most profitable, and a reduction of the less profitable branches.

In livestock farming as practised in eastern Canada, many factors contribute to success. Perhaps mechanical devices and equipment have been the most important single factor in recent years. Fertility of the land, weed control, size of unit and efficiency of operation have also been important. These and many other factors must be given careful consideration.

But in the final analysis, unless our cows, pigs, sheep and poultry are the kind which produce efficiently and meet our market requirements, we are working under a serious handicap. If the final product costs too much in feed and labor, outside competition will force us into other lines of activity.

The real measure of the relative profit between cows and herds is what returns the owner receives each year above his costs. The question of feed cost requires intelligent interpretation. The addition of certain feeds to a cow's ration may increase the cost of her feed per 100 lbs of milk, but at the same time this better feeding may increase the production sufficiently to show a higher yearly return.

Further, little consideration is usually given to other costs besides feed. These we know to be of very great importance. In fact, recent surveys in Quebec indicate that feed costs represent only 46 percent of the total costs in milk production.

A case that shows my point is the story of Elbert S. Brigham of Vermont. Mr. Brigham has recently been given the "Master Breeder" award by the American Jersey Cattle Club. This is the highest award a Jersey breeder can achieve, and only four breeders have ever won this distinction. This herd consists of over 100 milk-

ing cows and has averaged over 500 lbs. of fat for the past five years. We do not know of any other herd of this size on twice a day milking, 305 days, which approaches this record.

The secret of this achievement is apparently that, in addition to being a good farmer and producing excellent feed, Mr. Brigham has tested every cow in his herd for many years, and he has used these records to maintain and build up the production of his herd. Having such an outstanding group of cows has necessitated the most careful selection of sires; and here again only those of known production standards have been purchased during the past ten years.

Much has been said and written about records in the cow herd and feed lot. In fact it is a sort of "cornerstone" in livestock production. In spite of this, during recent years there has been a considerable tendency to neglect and overlook entirely this matter of building up the herd. But, intelligent selection and good management go hand in hand. They can change the whole picture in raising the production of our herds and flocks.

Unfortunately, when it comes to selecting or culling, numerous other considerations assume great importance. "Sally" belongs to a certain family; she is sired by a wonderful bull; she came into the herd as a gift; she has a grand head, horn or set of tail; she may do better next time; her calf looks good; she is already bred to a renowned bull; a big price was paid for her grandma or grandsire; and so on. The mental ingenuity of some people in thinking up reasons to retain "Sally" in the herd is amazing. Of course far too many have no reason to eliminate her because they do not know what she produces or how long her rest periods have been.

How long can we carry on without these records? And how much consideration will be given to costs of production where little or no information on production standards are available? These are questions of importance to all farmers, whether or not they recognize the fact.

There's no need to go on trying to breed on a hit or miss basis. Testing facilities are available to most farmers. All that is needed is action and support. In addition, standards of type for the various breeds have been pretty well established. Representatives for the various breeds are performing a useful service in helping farmers to grade their herds. The more progressive farmers have made the greatest use of this service. And now that there are signs of more labor being available, many others should take advantage of it.

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WALLACEBURG, ONTARIO

Strippings

by Gordon W. Geddes

August 2nd; and not done haying yet. However we did get enough good weather in the past week so that we have some hope of finishing if we get a little more like it. Until then we had made almost no progress since we stopped putting it in the silo. The weather has certainly stimulated interest in methods of handling hay. Several pick-up balers have been operating in the vicinity and they certainly handle a lot of hay and store it in a small space. But the hay must be dried before it can be baled. For the average farmer around here that means that he will either have a lot of very good quality hay or a lot of very poor quality, with the chances much in favour of the latter this year. Many of us would have to cut half our hay at once in order to make enough for a baler. If that proportion got badly damaged it would be a hard blow. For once the quality is gone out of hay nothing can replace it for milk production. Some difficulty was also encountered because the fields were so wet that the baler got stuck. This is easy to believe as they are a heavy machine and we found spots where even the hay-loader cut in.

So many of us are more interested in a means of handling hay so that the weather hazard is lessened. Drying in the mow is one way but that has many drawbacks. It requires quite expensive equipment and there is the necessity of waiting a week or more for one layer to dry before another can be added. So many of us think of having more silo space to put more of the crop away there. One of our Silver Medal farmers found that he had good results on an all-silage ration. Of course, silage is heavy stuff to handle but it can be done and one can keep going steadily. Much of the heavy labour could be saved with the field forage chopper if they got out a small one that could be drawn by a small tractor. With no work in

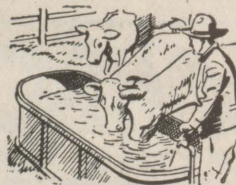


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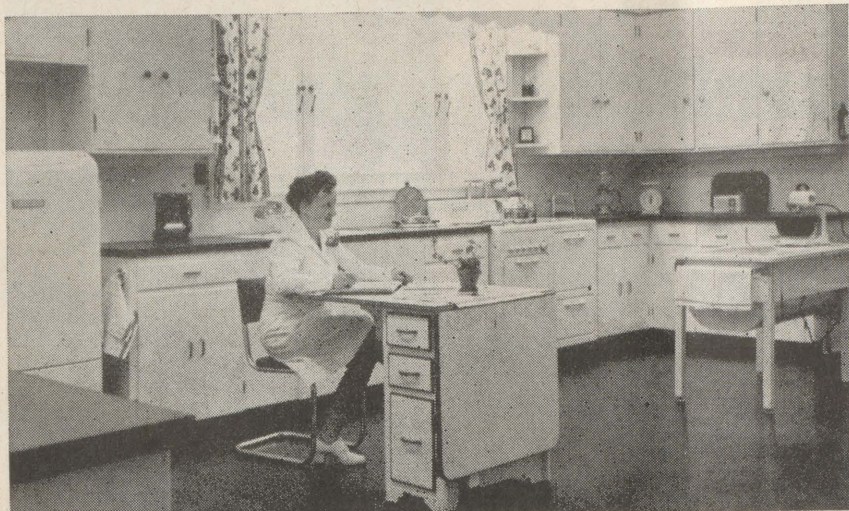
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M46-11

loading, it should be fairly easy to unload into the augur type blower. Of course several farmers would need to get together in such an outfit. For a time we wondered about the trench silo where one could drive in and dump as a solution to the unloading. However, a neighbour who tried one did not find them very well suited to our climate.

One thing we can be sure of and that is that we shall have to dry the rest of this year's crop. We hope that it will be accomplished in time to attend the Farmers' Field Day at the Lennoxville Experimental Farm.

We turned the cattle on the green oats at last and found two things we didn't like about it. One was that the ground was too wet and they punched

it badly. The other was how fast they ate it off. Two acres with eight cows and eight heifers on it disappeared in a few days. But it did help the milk while it lasted. Now, we are trying to feed green oats from clipping around the grain fields for the binder. But the cows do not eat enough of it and milk flow is dropping badly. The after-grass in the fields will be late this year as the first cutting was late but it will help when it does come.

D.D.T., is again taking care of the bugs in the potato field for us. But it rains so much it seems doubtful if the Bordeaux will be able to do its job of preventing blight.

The debut of the baby tractor has had Lorne and me discussing the problem of farm power. The small farm cannot have both horses and tractor power. Yet it seems doubtful if the baby tractor could be depended upon. Certainly this spring we would have had no crop at all on some of our land if we hadn't used horses to work it. As it is it is all sowed and will grow something though the return will be light in some of the wettest spots. Lorne is a great believer in the 'cat' tractors as he had experience with them in the West. Out here we do not see much of them on farms but this year would make one investigate their possibilities before buying a tractor.

More of Canada's dairy cows should be under some form of milk recording scheme. In Great Britain seventeen per cent of them are now on some system while in Canada only about one percent are tested. If cows

STOP

costly BREEDING FAILURES with

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WHEAT GERM OIL

4 oz. \$1.25 — 20 oz. \$5.00

VIOLIN (CANADA) LIMITED
St. Thomas, Ontario



are on test, farmers will see what they are doing and will pay more attention to the bulls they use and how the cows are fed. The provincial test system is simple and gives good results along that line. When we first started it years ago, the average test was low for Jerseys but more attention to bulls corrected that and more attention to feed brought up production so they all qualified in R.O.P. last year.

FOR SALE

DITCHING MACHINE

1916 Model—11½ x 4½

Manufacturer

Buckeye Traction Ditcher Co.
Findlay, Ohio.

Has gasoline engine and is in good running condition.

Price: \$1,200.00

*Apply — Hillsdowne Farm,
KNOWLTON, P.Q.*

Apply Complete Fertilizer In Fall

Fall and spring applications of commercial fertilizers on permanent pastures have been compared at the Experimental Station, Fredericton, N.B., since 1939. These experiments have shown that when a complete fertilizer is applied on pastures in the fall, higher yields are secured than when spring applications are made. Late fall applications, about October 10, were superior to early fall applications about September 10.

The three year average increase in yield from a complete fertilizer applied in late fall over a spring application was 306 pounds dry matter or the equivalent of 360 pounds of hay. Similar results were secured when only mineral fertilizers were applied, such as a combination of superphosphate and muriate of potash.

When a nitrogenous fertilizer alone was used, slightly better results were secured over a five year period from spring than from fall applications.

Have plenty of *BRIGHT, CLEAN, ECONOMICAL* light



Esso KEROSENE AND IMPERIAL NAPHTHA

The following letter from the Head Office of the Coleman Lamp and Stove Co. Limited speaks for itself:

"It has been our policy from time to time to have our laboratory test Esso Kerosene and Imperial Naphtha. After careful analysis each time we have found that Esso Kerosene and Imperial Naphtha have all the qualities so essential in fuels that are to be used in Coleman lamps, lanterns, irons, stoves, blow torches, and similar products. We highly recommend them for use in Coleman kerosene or gasoline appliances."

For complete satisfaction in your kerosene and gasoline appliances always use Esso Kerosene and Imperial Naphtha.



IMPERIAL OIL LIMITED

Farm Division



CO-OPERATION AND MARKETING

A page of interest to members of farmer's co-operatives

Nitrate Fertilizer Goes Up

by Floyd Griesbach

Many farmers are wondering why the price of ammonium nitrate increased on July 1 by about \$10 per ton to Quebec farmers and corresponding amounts to other eastern provinces, when during the war everyone was led to believe that a cheap process had been developed by the government factories to produce nitrates from water and air. After the war these nitrates were to be available to the farmers in the form of cheaper fertilizers.

The Canadian Federation of Agriculture took an active interest in these projects. While the war was still being fought, the C.F.A. asked the government to retain ownership of the nitrate plants to assure future cheap fertilizer to Canadian farmers.

The government sold the plant at Calgary, but according to the Federation promised to retain the Welland plant. In January, the Welland plant was sold to North American Cyanamid Ltd., without the Federation being informed and the following resolution was passed unanimously at the annual meeting of the C.F.A. in Winnipeg:

"We view with the greatest concern the announcement of the sale of the nitrate plant at Welland, Ontario, to private interests without consultation with the C.F.A. in spite of definite assurances by responsible

Government officials that the plant would be operated by the Government to protect farmers against unjust costs in the purchase of nitrogen-bearing fertilizers.

"This matter is of utmost importance to farmers in Canada generally, and the C.F.A. in particular because of:

1. The loss of control of costs of such fertilizers, and potential increases which can be expected, with resultant increases in cost of production of many commodities, and

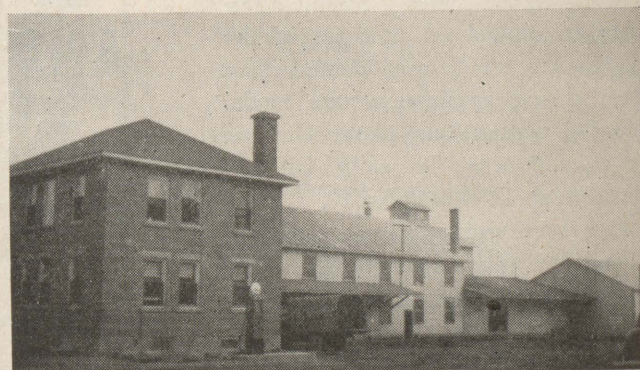
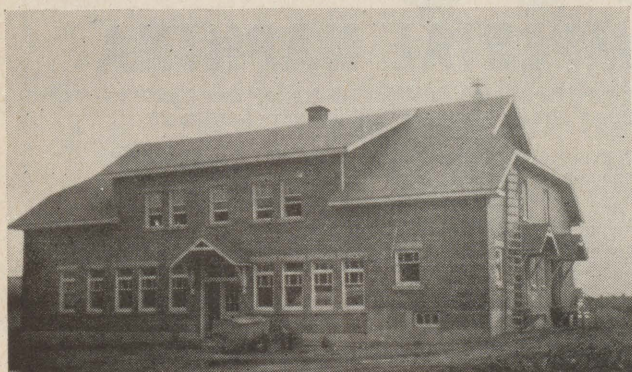
2. The breach of faith which this procedure constitutes on the part of some Government officials and the effect which this may have in our future relations with the government.

"We recommend that a vigorous protest be registered with appropriate Government authorities concerned and

"That an effort be made to have this plant returned to its former basis as was agreed by the Government, and that, failing this, "Every effort be made to develop with Government, methods which will assure protection in the matter of price and availability of nitrogenous fertilizers for farmers in Canada."

However, local farm groups across Canada took very little action at the time, to supply the provincial and national bodies with strong ammunition.

Plessisville Co-operatives Have Fine Plant



Among the many co-operatives of Frontenac County, the plant of the Plessisville Farmers' Co-operative is one of the most impressive. Standing side by side—as shown in the above picture—are the Feed Mill and Creamery, while under construction at the rear is the new building which will house the powdered milk

factory. The butter factory was opened in 1937 and the Feed Mill in 1941. There are 165 members in a 6 mile radius. Last year this co-operative did a business of over half a million dollars and paid \$30,000 in patronage dividends. The local credit union holds a mortgage of \$80,000 on the new plant. R. Michaud is the Manager.

MARKET COMMENTS

Record heat during July and early August has lowered prospective grain yields in Western Canada. The output of feed grain will also be reduced. Barley production may not suffer to the extent that oats will, as Manitoba, the comparatively important barley grower, has the best prospects of the three provinces, and also barley usually gets ahead of drought to a greater degree than oats. The feed grain situation may be expected to be tight again. The same weather that lowered grain yields enabled crops to overcome the handicap of late seeding.

Drastic cuts in British food imports have been announced recently. These cuts are due to lack of funds in the so-called hard currency countries. This situation makes crystal-clear the inability of inflation to solve currency problems in international trade.

Anxiety is felt over the status of food contracts between Canada and Great Britain. The crux of the matter is that Canada must permit Britain to pay for food imports in goods, or expect to see Britain expand imports from those countries that will import British goods.

The United States estimates a record wheat crop;

Acreage goals for fall seeding were recently revised upward.

TREND OF PRICES

	August 1946	July 1947	August 1947
LIVESTOCK			
Steers, good, per cwt.....	\$ 12.47	\$ 14.75	\$ 14.25
Cows, good	9.85	11.70	10.25
Cows, common	7.78	9.20	7.75
Canners and Cutters	6.38	7.48	6.25
Veal, good and choice	14.80	15.62	14.40
Veal, common	10.40	—	11.00
Lambs, good	15.01	17.17	16.10
Lambs, common	8.28	13.93	12.25
Bacon hogs, dressed, B-1	20.60	21.88	22.60
ANIMAL PRODUCTS			
Butter, per lb.	0.40	0.51	0.55
Cheese, per lb.	0.23	0.26	0.26
Eggs, grade A large, per doz.	—	0.39½	0.50
Chickens, 5 lbs. plus, per lb.	—	0.28½	0.26
Chickens, dressed, Milk-Fed A	—	0.38½	0.38
FRUITS and VEGETABLES			
Apples, Duchess, per bus.	1.50	—	—
Potatoes, Quebec No. 1, per 75 lb. bag	1.75-1.90	2.00-2.25	1.60 1.75
FEED			
Bran, per ton	29.00	30.25	30.00
Oil meal (38%)	—	45.25	45.25



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DEPARTMENT OF AGRICULTURE

*Activities, Plans and Policies of the Quebec
Department of Agriculture*

Cost of Milk Production Survey

A study on the cost of producing milk in the area surrounding Montreal, which was started in 1929 by R. Lecuyer of the Rural Economics Branch of the Department of Agriculture, has been resumed after having been interrupted by the war. During the first month of the survey, in October, 1929, individual records were obtained from 225 different farms. During the first five years the number of farms taken into the survey decreased gradually each year, owing to the fact that many farms could not furnish the necessary information due to abnormal conditions through losses by disease and in the fight against bovine tuberculosis, to the fact that some of the farms were no longer shipping milk to Montreal etc. During the last five years of the survey the number remained fairly constant.

The purpose of the study is to determine;

1. The total costs involved in the production of 100 pounds of milk on the farm.
2. What items go into the cost of production.
3. What variation exists in costs between the low and the high producing herds.
4. The relation and percentage of the different factors of expenses as compared to total costs.
5. What the variation in cost is between groups.
6. What factors are responsible for this variation.

The value of this information became very apparent when the Quebec Milk Board was set up in the summer of 1934, and the Rural Economics Branch worked in close collaboration with the Milk Board in obtaining facts and figures of the existing situation of market milk farms, which resulted in the payment of prices more in line with production costs.

Changes Noted

When the survey was resumed lately, it was found that considerable changes have taken place since 1939. It is expected, for example, that a later report will show that the hours of labour needed to produce milk have decreased due to the much more general use of milking machines. The first report showed that it took anywhere from 127 to 141 hours of work to look after one cow a year, with the average being 130 hours. The later report will probably show a considerably lower figure for this item. Labour hours include such items as milking, feeding, preparing feeds, cleaning stable, brushing and washing cows, watering, driving

to and from pasture, icing, cleaning utensils, drawing and packing ice, hauling feed and milk to the shipping point, etc.

Items taken into consideration in making the surveys are: feed, man-hours, interest and depreciation, decrease in inventory value, milk hauling and trucking, horse time, cattle purchases, taxes and miscellaneous expenses. Items of income taken into consideration, in addition to actual returns from milk sales, are the value of the manure produced, increase in inventory value, cattle sales and miscellaneous receipts.

It seems needless to quote cost figures as determined for the period 1928-1938, since present figures may well be quite different. However, some general conclusions were drawn which it is of interest to quote here.

The most important item of expense which enters into the cost of producing milk is feed cost. In the management of a dairy herd the cost of the feed is the most important factor because in many instances the difference between feed costs and the price of milk sold determines the profit or loss of the enterprise.

It is not necessarily the greatest production that is the most profitable, for often production is increased by the feeding of roughage and concentrates while the same result could be achieved more cheaply. In many herds feed costs can be reduced by feeding grain, hay and silage more judiciously and economically, but it is only by using cows of inherited high milk producing ability that the cost of producing milk can be reduced to a minimum.

Intensive feeding may be advisable when the price of milk is considerably above the cost of production, or when it is necessary for a short time to prevent the loss of a market, but when production costs must be kept low, both heavy feeding and underfeeding are uneconomical.

With regard to labour, the more efficient dairymen obtain a much higher return per hour worked because of better herd management. The depreciation of herd value which is due either to loss through disease, age, or because of the decline in the price of dairy cattle varies from year to year and remains an important item of expense.

Volume of production, better farm organization,

high producing cows and more efficient herd management by the use of better sires, the raising of heifers from cows that have proven their ability, by weighing and testing, by feeding according to production, the use of a well balanced ration and the culling out of the low producers, are essential to successful dairy farming. Cows of extremely limited milk producing capacity are a liability to any dairyman.

Would-be Bee Keepers Should Start Planning Now

An established beekeeper, or anyone planning to become a beekeeper next spring, should start planning in the fall.

Those who already keep bees must feed and protect their colonies for the coming winter so as to insure their continuity as living colonies into 1948. It is assumed that the first step in this direction has been taken and that all colonies are now up to full strength for safe wintering. If not, all the weak ones should now be united. A few strong colonies are much safer than dozens of weak ones, as the latter may be dead before spring. The next step is to see that every colony has an ample supply of wholesome food to carry it well into next spring or early summer. Most colonies that die of starvation do so during March or April simply because the food given in the fall is not quite enough to last until new supplies are available. Forty pounds is the minimum amount for each colony, a larger amount insures greater safety and gives stronger colonies next spring. The third essential is plenty, but not excessive, protection during the winter, whether in cellar or outdoor packing cases. With the latter protection from wind is highly important.

Those who are planning to start beekeeping next spring should bear in mind that unless the sugar situation eases before that time they are not entitled to extra sugar to feed the bees when they get them. Too many beginners have been losing their bees because of overlooking this fact. Established beekeepers are entitled to sugar. If, however, enough sugar can be spared from household ration, bees should be ordered before the new year and then make sure that all the equipment necessary to house and care for them when they arrive is at hand. Feed and protect all bees on hand for the winter now and place orders for new bees to be delivered next spring as soon as possible.

National Barley Contest Is On Again

The National Barley Contest, begun last year and which proved extremely popular, is on again this year, and about 425 farmers of the Province of Quebec, rep-

resenting 42 separate counties, have registered. Inspection of standing crops was done during August and grain judging will be done later in the fall.

Prizes will be awarded according to the following scale: 1. Inspection of the crop in the field; 2. Inspection of grain thrashed; 3. Analysis of grain by the official laboratory; 4. General appearance of the grain and its suitability for brewing.

Any candidate who does not score at least 60% when his standing crop is judged is out of the contest from then on.

Quebec farmers did a fine job in this contest last year, and they are all hoping to do still better this year.

New Regulations On Several Products

The following revisions have been made in the Destructive Insect and Pest Act, and are given here for the information of our readers.

For a number of years, **Regulation No. 2 (Domestic)**, has restricted the movement of corn and corn products from Quebec and certain areas in the province of Ontario on the one hand and the Maritime provinces on the other on account of the European corn borer. This regulation has now been revised effective June 17, 1947, permitting the free movement of the products anywhere in eastern Canada east of the Districts of Thunder Bay, Patricia, Kenora, and Rainy River in Ontario.

Regulation No. 12 (Domestic), restricting and prohibiting the movement of elm trees and elm products with bark attached on account of the European (Dutch) elm disease within and beyond certain areas in the province of Quebec has been amended to include additional infected areas. Effective June 17, 1947, the following counties in that province are now under quarantine: Arthabaska, Bagot, Berthier, Chambly, Champlain, Drummond, Hochelaga, Jacques Cartier, Joliette, L'Assomption, Laval, Levis, Lotbiniere, Maskinonge, Megantic, Montcalm, Nicolet, Port Neuf, Quebec, Richelieu, Richmond, Rouville, Shefford, St. Hyacinthe, St. Maurice, Terrebonne, Two Mountains, Vaudreuil, Vercheres, and Yamaska.

Regulation No. 1 (Export) revised effective June 17, 1947, which affects all of Canada, prohibits the export of apples from Canada to countries other than the United States and Newfoundland, unless accompanied by an export inspection certificate issued and signed by an inspector duly appointed under the Destructive Insect and Pest Act. Such certificate may be provided only in cases where the orchardist has complied with specific regulations dealing with insect control applying particularly to the apple maggot.

Mechanical Aids for Horticulture

by H. R. Murray

Modern machinery can help speed all horticultural operations. Caterpillar and rubber tired tractors together with the necessary attachments aid in land preparation, fertilizer spreading, seeding, cultivation, spraying and dusting. In addition to this there is equipment to aid in marketing—fruit and vegetable grading and packing machines, and modern cold storage.

Caterpillar tractors are ideal for all heavy work in connection with mineral soils and for general work on muck soils. They also supply a preferred type of power, through a power take off, for large orchard sprayers, and are especially useful when the land is soft during early spring spraying operations. Finally, they may be used with a pulley for sawing wood and for operating grinders.

The rubber tired tractor, is ideal for the preparation of light land. A good type has a hydraulic-lift two-furrow plow, a hydraulic-lift row crop cultivator and a grubber. It may be used for pulling the rubber tired trailer, the row crops sprayer and the transplanting machine. The trailer is used to replace the old horse drawn wagon, the row crop sprayer for insect and disease control in all row crops such as potatoes, cabbage, etc. The transplanting machine is indispensable to growers of strawberries, tomatoes, cabbage, cauliflower and in fact any crop which is set in rows at distance of 12" and greater. The new transplanting machine is fast and accurate and adds liquid fertilizer during the transplanting operation.

The cultivation work of the smaller crops may be handled very adequately by garden tractors. These are equipped with seeders and all the necessary hoes and cultivators for small fruits and vegetables. In an emergency they may be equipped with row crop sprayers and dusters.

Grading and packing may be completely taken care of by a large Cutler fruit grader, which is used for apples, tomatoes, cantaloupes and plums; and a Boggs vegetable grader which is used largely for potatoes and onions. There are in addition small machines for bunching asparagus, beets, carrots and onions.

Finally, there is the cold storage. The most modern plants are equipped with sealed unit condensers, vacuum cooling plates and high speed circulating coolers for pre-cooling. These are automatic, being equipped with electric controls and defrosters.

Better Root Beds Are Needed

"Root-bed" is a new and deeply significant farm word. Greater in scope than its well-known counterpart, seed bed, it draws attention to all the tillage and fertility

factors that enable a soil to provide growth supplying power throughout the whole life of a crop.

It is generally realized today that the final yield and quality are closely related to the ability of the root system to penetrate deeply and widely, and secure at the same time an adequate amount of moisture and plant food to keep the crop growing without check.

Some of the most essential requirements of a good root-bed are:—1. Good depth of cultivation. 2. Correct amount of lime for the type of crop being grown. 3. A suitable supply of organic matter. 4. Good drainage and aeration. 5. A high supply of available nitrogen, phosphoric acid and potash, and an adequate supply of secondary plant foods such as magnesium and boron.

Close attention to the lime supply is especially necessary for legume crops like alfalfa, red clover, peas and most leafy type vegetables. These are lime lovers and require a nearly neutral soil reaction. Low lime, acid soils are preferable for the potato crop as under these conditions scab development is usually less serious.

Organic matter improves the tilth of heavy soils and increases the moisture holding capacity of all types. It supplies nitrogen throughout the warm weather months and is a source of food for beneficial soil bacteria. It can be increased by applying livestock manure, plowing in green manure crops and the growing of legume hay crops. Too much organic matter, however, trends to favor lodging of grain crops.

To provide adequate amounts of available plant food, the root-bed should receive liberal quantities of manure and commercial fertilizers. Mixtures high in mineral plant food are best for grain crops. Well balanced medium high nitrogen complete fertilizers like 4-12-6 4-8-10 are favoured for potatoes, truck and garden crops.

At the annual convention of the Collège des Médecins Vétérinaires de la Province de Québec, held at Rivière du Loup on August 30th, Dr. T. W. M. Cameron, Director of the Institute of Parasitology, was made an honorary member of the college.

In accepting his appointment, Dr. Cameron paid high tribute to the work of veterinarians, to whose efforts, though usually unseen and unreported, and for which often little credit comes, is due the fact that Canada has so little disease among its animal population as compared with the situation in Europe and other parts of the world. "It is not too much to say," stated Dr. Cameron, "that in the hands of the veterinary profession lies much of the power which will help to maintain peace. Without a well-fed world peace is impossible; without freedom from animal disease it is impossible to feed the world well. And without a veterinary profession, it is impossible to have freedom from animal diseases."



THE WOMEN'S INSTITUTES SECTION

*Devoted to the activities of the Quebec Institutes
and to matters of interest to them*

A Month With the W.I.

Argenteuil: Frontier catered to the local Calf Club at their annual field day. Life in a Japanese internment camp was vividly described by Mrs. Westridge, who had spent 2½ years in such a camp in Shanghai. Jerusalem-Bethany added a very thoughtful touch to their last Personal Parcel when an Ayers bed throw was sent to their recipients who are celebrating their golden wedding anniversary. Lachute entertained Mrs. Consiglio, Montreal, who gave a delightful talk on her trip to Mexico. Mille Isle held a successful card party. Pioneer heard some most worthwhile suggestions for their rollcall, "A Health Law I would like passed." Upper Lachute and East End. "I didn't want my children to grow up in Soviet Russia" was the subject of a paper and a quilt raffle netted \$33.50.

Bonaventure: Delegates from 5 branches attended the county meeting when the highlight was a travel talk by the local minister who had been touring Europe. New Richmond discussed the Blue Cross and are making use of the English gift books. A stork shower was given a member who is an English war bride and a gift parcel is being sent to Holland. A very full programme is noted; contests, riddles, penny drill and an article, "The True Institute Spirit". Sunshine bags are being used to raise funds. Port Daniel is sending a girl to a summer camp, a splendid project. The Blue Cross was discussed and clothing given a needy family. Shigawake reports a well attended meeting.

Brome: Austin is taking a most important step when a committee was appointed to see about purchasing a building to be converted into a hall. The speaker, Mrs. M. Corbett, gave an account of her trip to Russia by plane. Sutton discussed the report of their county meeting and held a flower quiz.

Compton: Brookbury records several donations; \$5 to cemetery fund, \$10 to school fair prizes, \$2 renewal fee to U.N.S., two blankets to twin babies and a coin shower for another "new arrival". A committee from East Angus attended and plans were made for the exhibit at Cookshire fair. Bury has started a thrift shop (we will hear more of this). Another canteen was sponsored for the dance in the armory and plans made for a school fair. "Care of the Aged" was the subject of a paper. Cookshire branch visited them in August. East Clifton has completed their share of the county hospital pro-



Bury Women's Institute holds a Quilting party.

ject. The school fair was discussed and a food sale was held to raise funds. A child's diet and wardrobe of today was the subject of the programme and a guessing contest proved popular. East Angus entertained Mr. W. G. MacDougall who showed slides on beautifying the home grounds. Maple sugar has been sent to the veterans in local hospitals and a quilt featuring the flags of various countries is to be made for the Cookshire fair. Scotstown has been beautifying their cemetery and \$66 was realized from a sale for this purpose and the county hospital project. Social events have also been held and another sale for the benefit of their library. Sawyer-ville held a special tea in honour of the 50th. anniversary of the W.I. Life memberships were presented to two valued members, Miss MacKay and Miss Williams, and a talk given on the history of the Institute.

Chateauguay-Huntingdon: This county is undertaking a campaign to raise funds for the New Barrie Memorial Hospital and all branches are giving enthusiastic support: Aubrey-Riverfield voted \$25 and promised \$100 more over a period of three years. Dundee also records a donation to the hospital. An exhibit of cut flowers and a demonstration on gummed tape dress forms by a member of Fort Covington, N.Y. Home Bureau are reported. And here is a note of interest to all, "One of our members, Mrs. Smallman, leaves by plane on Aug. 24, for England thence to Holland to attend the A.C.W.W. convention." Franklin Centre, another donation for the hospital here, \$25, proceeds of a play

given by Rockham Y.P.S. A satisfactory sale is also reported from the W.I. booth at the Ormstown fair. Howick heard a talk by Mrs. Paintin, Supt. Barrie Memorial Hospital, on Cancer. A donation was made the School for the Blind, Montreal, and the county public speaking contest discussed. Hemmingford had a successful "Grandmother's" meeting when they were responsible for the programme. Treasured old keepsakes, connected with interesting stories, were shown and a bouquet of roses was presented to each grandmother. Ormstown, a wonderful idea is reported here, money sufficient to furnish a room in the new hospital, \$350, was donated in commemoration of the 50th anniversary of the W.I. The meeting took the form of a picnic at Hungry Bay. This branch had charge of the W.I. booth at the Ormstown fair and records the most successful year financially for that project.

Gaspe: Haldimand made a donation for the Girl Guides and discussed plans for the children's picnic. L'Anse aux Cousins also gave a donation to the Girl Guides and sent tea and coffee to Amsterdam. Gardening was the subject of the programme and a quiz was held on the Collect. Wakeham discussed the Blue Cross and distributed pamphlets. Suggestions for the 1948 W.I. fair were sent in. No wonder this annual

event is such a success when work is started so far in advance.

Gatineau. Aylmer East sponsored a picnic for the school children. Talks were presented on "Adult Education" and "False Democracy" at the regular meeting. Breckenridge held a sale of flower slips and bulbs to aid funds and conducted a flower contest. Eardley had an exhibit of articles made from flour sacks, which were later drawn for. Prizes were also awarded in all grades of three district schools. Kazabazua gave a dance to augment funds and held a demonstration on "Home Canning".

Rupert sponsored a Memorial and Decoration Day Service at the local cemetery with addresses by the clergymen and music by the united churches of the district. Wakefield had a film showing of pictures of the Canadian Rockies, the Gatineau region and Ottawa, all in technicolor. These pictures were produced and shown by the husband of a member who gave a commentary about them. Wright entertained the children of the district school and also voted money for school prizes. These children raised the splendid sum of \$47 during the year for the Junior Red Cross.

Megantic: Inverness reports fresh interest in their library. 35 books were donated by Mrs. Robinson and

SOME OF THE COUNTY GROUPS AT THE CONVENTION



Here we see some of the Pontiac delegates. Unfortunately the president, Miss Pritchard is not shown with the group. As might be expected she is very busy taking the picture.



No wonder the county president, Mrs. Parsons is proud of the size of this group from Compton. Mrs. Parsons is in front with the Prov. Convener of Home Economics, Mrs Hurley, first on left in next row.



And here is a group from Gaspe. Mrs. Miller, county president, is seen holding the scrapbook on Gaspé, made by the school children of York which was on display in the Institute exhibit.

Mrs. Bolduc was appointed librarian. A quantity of the English gift books have also been received. The Blue Cross was studied at their meeting.

Missiquoi: Cowansville is planning a Hobby Show and School Fair, and heard a timely talk on Immigration. The minutes of the first Institute held in Cowansville, Dec. 1911, were read. Three charter members still belong to this branch. Fordyce conducted a health quiz with prizes and sold F.W.I.C. seals. St. Armand donated \$5 to the Red Cross and enjoyed an amusing contest, "Queer Cats".

Pontiac: Beech Grove donated fruit and sugar for the school picnic. Bristol Busy Bees had a display of handwork and a paper was given on "Freezing and Canning Strawberries." Clarendon is sponsoring a play from a neighbouring town. The Blue Cross is under consideration. Elmside is caring for the flower border at the school and gave ice cream and soft drinks for the school picnic. Articles were given by the convenors. Fort Coulonge had a talk on conditions in Norway by Miss Dorff, who has recently arrived from that country. The training of children for family life was presented by several members. Shawville, a demonstration on cooking a dinner in a pressure cooker was a feature of the meeting and a vocal duet was enjoyed. Stark's Corners held a health contest followed by a talk by a nurse from the Community Hospital. Quyon held a sale of cooking and gave suggestions for ways of avoiding traffic accidents. Wyman, Mrs. Kerr, R.N. spoke on "What to do before the doctor arrives". Health hints formed the rollcall.

Papineau: Lochaber is enjoying a shipment of the English gift books. Many social activities are reported; a dance to raise funds for the county, a shower for a member on her silver wedding and an enjoyable picnic. The grandmothers were invited to the meeting and prizes were given for the oldest and youngest also (for a little fun) the shortest and longest dress. A demonstration was given on arranging a flower centrepiece.

Richmond: This county is making a determined effort to interest the girls in junior work and Miss Alice Dresser has been asked to act as county supervisor. The prov. pres. Mrs. C. E. Conley, was a guest at their meeting and presented the retiring co. pres. Mrs. Ira Patrick, with a Q.W.I. life membership pin and certificate. Two members of the Cercles des Fermieres were present and displayed samples of their weaving. Cleveland featured a demonstration on First Aid and a quiz on Health Rules. Work is under way for a sale of handwork later. Dennison's Mills reports the electricity was turned on for the first time when they had their last meeting. A hot plate has now been purchased. A successful food sale was held and three new members joined. Gore held a bread contest with prizes and presented flowers to the mother of twin babies. Richmond Hill has been

repairing the sheds at the hall. A contest on articles made from one yard of cloth is also mentioned. Ship-ton tendered a farewell party to a member moving away. A baking contest and dance are other items reported. Windsor Mills had an apron parade and handicraft display. Six new members were added to the roll.

Rouville: Abbotsford, a bag woven by a member of this branch, Miss M. Marshall, won second place in the province in the Tweedsmuir competitions.

Shefford: Granby Hill realized \$10.50 from a sale of articles made from cotton bags. This is one of the many branches holding a picnic each summer. South Roxton reports with sorrow the loss of a charter member. Another grandmother's day is noted here, a social hour was enjoyed and special refreshments of cake and ice cream served. Warden also entertained their grandmothers when a cup and saucer was presented to each of those present. A food sale was held and a donation to "Save the Children."

Sherbrooke: Ascot with deep regret reports the sudden passing of their secretary, Mrs. N. L. Cameron, who had held that office for the past 26 years. Belvidere held a parade of home made housedresses which were judged and prizes given. A gift was presented a member leaving the community. Brompton Road is making stuffed toys to be sold at a future sale. Mrs. Twombly from a Homemakers Club in Vermont was the guest speaker giving a talk on "Make your living room more livable." Cherry River had a display of articles made from grain and flour bags and a sale of aprons. They are giving prizes in the school. Lennoxville gave out seeds and instructions to the children in preparation for the school fair. Sunshine bags were distributed among the members. Milby is still working on raising funds for the New Sherbrooke Hospital; they already have a wonderful record. \$5 was voted to the Greek Campaign. Children under two and their mothers were invited to the meeting and a small gift given each tiny tot. Orford held a picnic meeting. A gift was presented a member on the occasion of her golden wedding. Almost all of the branches in this county reported articles sent to the W.I. booth at the Sherbrooke Handicraft Exhibition.

Stanstead: Ayer's Cliff held a food sale and social evening. Beebe voted \$10 to Sherbrooke Hospital and \$5 to St. Vincent de Paul. Four girl guides were sent from Beebe in exchange visit with New Hampshire guides. Minton is planning to make a waste paper drive. Tomifobia sent a box of clothing to Save the Children. \$25.12 was realized from a film showing and dance. Hatley made a presentation to a member who was leaving town. The annual dance was held July 1, about \$100 was realized from this project. Way's Mills donated \$5 to Greek Relief. Quota of the county hospital project has now been reached and forwarded.

Is Your School Fair a Success?

by Evelyn Walker

If your school fair is the success that it can and should be, the benefit to the children is enormous. It gives them some vocational training in agriculture and home economics, but more than that, it gives them very valuable training in leadership, teamwork and co-operation. However, there is something we should remember in school fairs as well as in anything else of a competitive nature: the central thought should not be—win at any price! Rather it should be a co-operative outlook which will develop a community spirit and help to make our children of today better citizens of tomorrow.

Here is an excellent opportunity for your Women's Institute branch to do a real service to the community as a whole and to the Juniors especially. If you are not sponsoring a school fair this year, get in touch with your local Agronome now, and begin to make plans for next year. You will find it well worth the effort.

Is your local school fair something of interest only to the teacher, the pupils, and perhaps your local Agronome? Or is it an event in which you can take an active, constructive part? If everyone in your community can answer 'yes' to this second question, then your fair is a success. If not, it can stand improving.

School Fairs are not at all an innovation of recent years, although it is true that the past few years have seen a much wider interest taken in this phase of our educational work in agriculture. In 1920, according to an official report, 114 schools in this province held fairs with about 2,000 boys and girls participating. Interest abated shortly after that, but in the last few years fairs have been revived and have now a firm hold on the enthusiasm of both child and parent in most communities.

Notice the emphasis on child **and** parent. It is only in communities where both, and all, age groups take an active interest in the success of the fair that it flourishes.

You may ask—why should I support the school fair? Does it really benefit the school children or the community? Yes indeed, it **should**, and if it is a good school fair, it **does**. For one thing it promotes better understanding between parent and teacher through personal contact, which is something we should be striving for in any project in education. It also promotes better understanding between the English and French sections of the community, especially if the school fairs of the two can be combined. It leads to better crops and livestock; better methods of farming and housekeeping.

Our Poet Treasurer Reports

(When the Prov. Treas., Mrs. G. D. Harvey, arose to read her report at the convention, her listeners were delighted to hear the following original poem as a preface to the more prosaic accounting of dollars and cents which followed.)

This report is a brief and plain accounting
Of my stewardship for you;
You'll find no frills, but just mere facts,
As they occurred the whole year through.
Your Treasurer's books I have kept with care,
For your finances are all centred there.
And I'm really glad to report an increase,
Which shows that your interest does not cease.
Our Provincial per capita from year to year
Serves many purposes and keeps our name clear.
Our Q.W.I. Service Fund is a source of pride,
Given so freely, with loyalty as your guide.
You've donated to the Red Cross and Chinese sick and
distressed
Who have sacrificed so much that we might have the
best.

To the "Save the Children" Fund, came many a
contribution;

These are lasting memorials to the W.I. institution.
Between you and me, it is only right to give

To the starving people of Europe, that they may
live.

God grant that Peace has now come to stay,
That they may never again have to suffer in this
way.

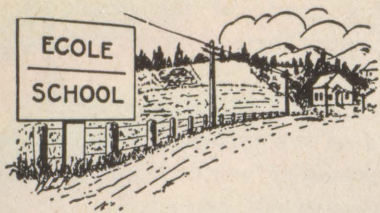
To send our beloved President to Amsterdam in
September,

Willingly came twenty-five cents from almost
every member.

Over six hundred dollars is now held in my trust,
For to have her represent us there, is only fair and
just.

The sale of F.W.I.C. Stamps, Motto Pins, and such
As well as many life Memberships, have yielded
us much.

So, here is my report . . . now study it, please;
It's receipts and disbursements to compare —
The cash taken in, and cheque given out —
You will find, all listed with care."



LIVING AND LEARNING



I.F.A.P. Speaks for Farmers

by Floyd Griesbach

The farmer who used to follow his lonely plow, feeling he was a forgotten man and had little or no say in what was happening to him is in a vastly different position now. It is now possible for each individual farmer to have a voice in world affairs through his own organization, "The International Federation of Agricultural Producers."

By taking part in his local Farm Forum, or farmer's club, which is active in the county or district Committee, his voice will follow through the Quebec Council of Farm Forums, the Canadian Federation of Agriculture, into the International Federation of Agricultural Producers. He will be contributing his thoughts and judgment to guide world statesmen.

When he pays his membership fee to the local organization, part of it is used to finance his share of each step in the organization. If \$1.50 membership fee, or even many times this amount, along with taking an active part to the best of his ability in his own organization, succeeds in establishing a method of producing for plenty and actually feeding the world, it will be the cheapest method ever developed to preserve world peace.

The last two wars have cost the Canadian people many millions of dollars to obtain "peace". How much better if that money could have been spent in taking the drudgery out of farming, or in travel, education, health services, or many other present day "luxuries".

Food First

While speaking to the Manitoba Federation of Agriculture recently, H. H. Hannam said, "You can't talk peace to hungry, undernourished and starving people. Food must come first—then ideals, organization, and peace. Delegates in the I.F.A.P. conference believe that their own program of full production is one of the first fundamentals for peace.

"But, we must say, if the nations are genuinely disposed to build a better and a peaceful world they must bring to the forefront of their social and economic policies, the vast improvement in living standards that can be effective by relating food production and distribution to consumption needs. This is fundamental.

"The organized farmers of the world believe in pro-

ducing for plenty, and accept it as their responsibility in the task of feeding the world. Not once did any delegation suggest restricting production in order to hold prices or gain economic advantages as some other interests and industries have done. Our motto might well be "Peace and Plenty".

The Old Way

"In simple terms such a program means that a new trade pattern must replace the old. The old-time trade methods and practices which were carried to the extreme in the period between the two wars were characterized by:

- (a) So-called unrestricted competition;
- (b) Widely and sometimes violently fluctuating prices;
- (c) Temporary and regional surpluses, clogging markets and driving farm prices down to ruinous levels while resultant industrial stagnation and unemployment created hunger and distress in other areas;
- (d) Conditions that gave maximum opportunity for speculation;
- (e) There was no over-all world objective toward which international trading might be directed.

The New Way

"Amongst basic principles underlying a world food program are the following:

- (a) A minimum of price fluctuations;
- (b) Order and system in the production and distribution of food and farm products all the way through from the farm to the world market;

Having a world goal — that of more and better food for the consumers of the world and more satisfactory and stable returns for primary producers;

- (d) "Only by consultation and co-operation between Governments can reasonable stability of agricultural prices be achieved."

F.A.O.

The Hague conference believed that I.F.A.P. must become a vital force in the drive to bring into operation at the earliest possible date, a world food program. "In our opinion it is of the utmost concern to every farmer that the FAO program be carried out and that the farmers of the world have a say in that program. We believe

that if agricultural prices in the future are to be sufficient to give producers a proper and stable return they must be stabilized in the world market and by international agreement. Unless this is done we cannot establish or hold satisfactory prices in the domestic market. We can't have slumps that ruin farmers and high peaks that starve consumers, destroy markets and trade, and prevent people who need food from getting it."

Good Attendance

At the recent I.F.A.P. conference at The Hague, Holland, official farm delegations were present from Australia, Belgium, Burma, Canada, Denmark, Finland, France, Hungary, India, Luxembourg, Netherlands, New Zealand, Norway, Southern Rhodesia, Sweden, United Kingdom, United States, Bolivia, China, and Czechoslovakia; and observer delegations from Rumania, Spain, Switzerland, South Africa, Turkey, Yugoslavia, Dominican Republic, Eire, Iceland, Kenya, Mexico, and Peru.

Indifference and Inaction

The Canadian delegation warned the I.F.A.P. conference—"The lack of progress in implementing the FAO program is a matter of deep concern and disappointment to us. A continuation of this delay and trend will simply permit us to drift into the vicious nationalistic trading practices which prevailed in the period between the two world wars. This must be avoided at all costs.

"The Canadian Federation of Agriculture is of the opinion that the FAO organization is well-directed and well staffed and is making a real effort to get its food program underway. But there is danger of that program falling down because of indifference or inaction on the part of Governments.

We are happy to be able to say that this implied criticism does not apply to the Canadian Government. The Ministers of Agriculture and Trade and Commerce, and Canadian delegations to FAO and Trade conferences have given ample proof of their readiness to go as far and as fast in implementing a food program as any other Government and seems quite willing to go further at once than most others.

"Sound agricultural development is the key to an expanding world economy. Of the world's population gainfully employed the vast majority is engaged in primary agricultural production. Consequently it is imperative that producers' returns be stabilized on the basis of an assured economic price for the highest possible level of production.

"The resulting increased purchasing power of the agricultural producer will in turn provide bigger markets for the products of secondary and other industries, the higher possible level of employment in manufacturing industries and in shipping. The cycle is completed by the resulting increase in the general

level of purchasing power of the people employed in all spheres—enabling them to improve their dietary and nutritional standards.

"Stability and opportunity to increase productive efficiency, afforded to the primary producer therefore, is the key to an expanding world economy, and to the stimulation of international exchange of goods and services."

I.F.A.P. Absolutely Necessary

Minister of Agriculture, Mansholt, of Holland, in welcoming the delegations from the farm organizations of 33 nations said, "I consider the I.F.A.P. to be an absolutely essential body beside the Food and Agricultural Organization of the United Nations.

"Just as it is absolutely impossible for a Ministry of Agriculture in a free country to lay down regulations without being continuously in touch with the organizations of the agricultural population, it will in a free world, such as we see it as our ideals, be impossible for FAO to fulfil its task adequately, if it does not find at its side a world-organization of the farmers themselves, which makes the voice of agriculture resound in the house of FAO, just as the voices of the farmers' organizations resound today in the various Ministries of Agriculture."

Must Work Together

James Turner, President of IFAP, in responding to Minister Mansholt, emphasized the place of the farmer in the world peace program, when he said: "I sincerely believe, and I know that you all share my belief in Agriculture's ability to remove hunger and want and all its attendant social evils. Agriculture cannot achieve this, however, without the concerted lead of Governments. And we have a message, therefore, to send today to the Governments of all nations. It is this: an agriculture in full production, with its products distributed in an orderly manner, introduces to the world the way to economic and social salvation, prosperity for all peoples and a degree of contentment that leaves no excuse for war. The only proviso is that those two-thirds of the world's population who compose the personnel of agriculture shall find such stability as will lead to continuity of production and service. Recurring wealth of primary production is the source of all trade, and experience has already shown—or ought to have shown—that an expanding world economy cannot find its origin in secondary production. The integration of national agricultural policies is essential to orderly production and the reorientation of agriculture to meet the progressive needs of consumers. Governments, as represented by FAO, and the producers, as represented by IFAP, must stand firm by their ideas of individual responsibility, initiative, service, and reward, if civilization is to advance to an era of universal prosperity."



THE COLLEGE PAGE

A Busy Summer

The maintenance, residence and dining department staffs have drawn a long breath after one of the busiest summers Macdonald College has known. The end of classes in June sees all the students away to their homes or summer jobs, but it by no stretch of the imagination means that the College closes down for a long lazy summer. Summer schools, conventions, group meetings of all kinds keep the residences well filled, and there is barely time to get them into condition again before the first of the students arrive early in September.

Early in June a number of students of the viola took up residence for a special summer course under the world famous violist, William Primrose. On June 7 and 8 the College was host to the Montreal and Ottawa Conference of the Young People's Union. The next week came the convention of the Canadian Feed Manufacturers' Association, which was followed by the meeting of the Canadian Seed Growers' Association.

From June 23 to June 27 the Quebec Women's Institute delegates were here for their executive and general annual meetings, and for three days at the same time a group of agronomists from the United States, members of the Northeastern Section of the American Society of Agronomy held a convention here. On June 30 the Summer School for Teachers and the Summer School for French Specialists registered for a stay of a month, and twenty other teachers came at the same time to attend the P.A.P.T. Workshop, a forum for discussion of problems of the teaching profession. On July 26 a garden party was arranged by Principal James for the members of the International Federation of Women, who were holding a conference in Montreal.

The Summer School for Clergymen came in on July 28 and left on August 9th. This was the last organized group before the regular classes of the School for Teachers registered on September 2nd.

Although it places a burden on the shoulders of the staffs involved, the College is glad to be able to place its magnificent facilities at the disposal of these groups, and is always glad to welcome them back year after year.

New Chairman of Chemistry Is Appointed

R. H. Common, B. Sc., M. Agr. (Belfast), D. Sc., (London) has been appointed to the post of Chairman of the Department of Chemistry to fill the vacancy left by the resignation of Professor McFarlane. Dr. Common, who is a member of the staff of the Faculty of Agriculture of Queen's University of Belfast, will arrive in Canada late in September.

Dr. Common's main interests have been in the application of biochemical methods to studies of animal nutrition, and he has worked fairly extensively on the composition and digestibility of various by-products of the oat milling, flax and ryegrass seed industries of Northern Ireland. During the war he was engaged on analytical and advisory work arising out of the wartime control and rationing of feeding stuffs and fertilizers and the production of dried potato products. He also acted as special supervisor for the director of Canning Control in connection with the technical control of the canning industry in Northern Ireland.

The Macdonald community are looking forward to the arrival of Dr. Common and are prepared to give him and his family a hearty welcome.

N.S.A.C. Scholarship Winner

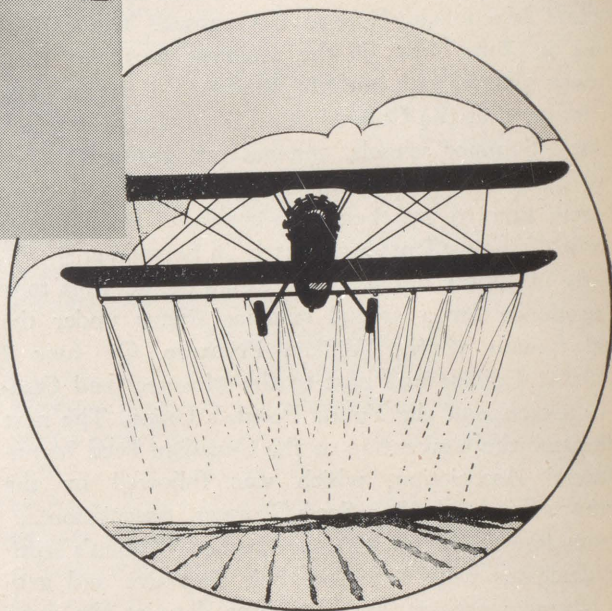
Charles Edward Henry is the 1947 winner of the scholarship offered by Macdonald College to the graduate of the Nova Scotia Agricultural College who leads the class in final examinations there. The winner is entitled to free tuition for two years at Macdonald College.

Mr. Henry was born in Manitoba and lived on his father's farm at Oak River until he enlisted in 1939. His High School education was obtained in Manitoba, and on discharge from the service he enrolled at the N.S.A.C. He graduated in May 1947 and is coming to Macdonald College to join the third year class this fall, specializing in Agricultural Engineering.



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